

Issued Every Month  
For Free Distribution to Users  
of Machine Tools

# HITCHCOCK'S MACHINE TOOL LIST

A Reference Book for Buyers  
of Iron Working Machinery

Published by  
**A. H. HITCHCOCK**  
1220-1235 Caxton Building  
Chicago



## Red-E Roughing Tool

For High Speeds and Fast Feeds  
Correct Cutting Contour and Angles

Four Sizes. Send for catalogue and prices today.

**The Ready Tool Company**  
Bridgeport, Conn.



**Are You Tired of Paying Big Bills for High Speed Steel?**

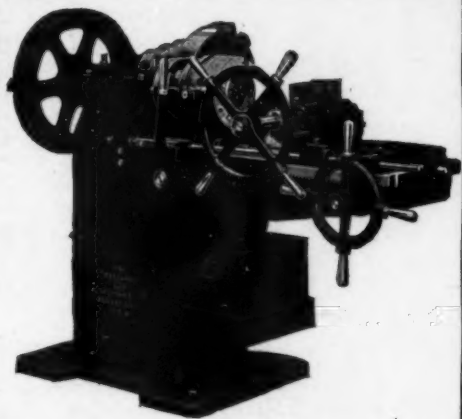
### ARMSTRONG TOOL HOLDERS

Make 1 lb. of Tool Steel go as far as 10 lbs. in Forged Lathe and Planer Tools.

Write for catalog—It tells other advantages

**Armstrong Bros. Tool Co.,** 308 N. Francisco Ave.  
CHICAGO.

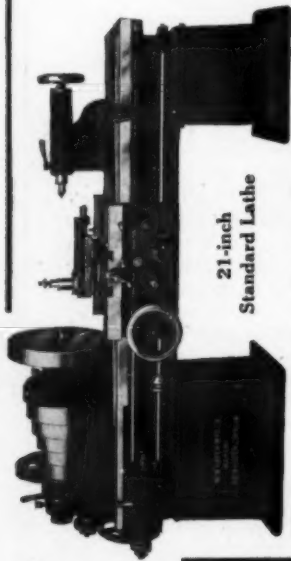




## Reliance Bolt Cutters

Built in sizes  $\frac{3}{4}$  inch to 6 inches, Single, Double and Triple, of the most up-to-date design. There is, also, a good reason why the "Reliance" is such a satisfactory machine for accuracy of threads cut, large production and low cost of maintenance, even in the hands of inexperienced labor. A lot of this reason is in the Opening Die Head, and we would like to tell you all about it. Interesting information for the asking.

**The Foote-Burt Co., Makers**  
Cleveland, Ohio



21-inch  
Standard Lathe

**EVERY LATHE** that leaves  
our factory has behind it  
"The New Haven Guaranty"  
and our reputation for 60  
years of square dealing.

## Here is Our Low-Priced Lathe--a Good One

This is the best moderate-priced lathe, we believe, on the market today. It is rigid and powerfully geared, with 5-step cone and 3-in. belt, or with 3-step cone, 4-in. belt and double back gear. We also furnish an instantaneous 3-change feed box, providing a powerfully geared drive with a range of feeds from 5 to 250 per inch, and thread cutting from 1 to 24. These Standard Lathes (18 to 28-in. swing), with our latest improved Modern Engine Lathes (24 to 65-in. swing), offer for selection a wide range of up-to-date, dependable tools.

*If you will tell us your requirements, we can make it worth your while*

**New Haven Manufacturing Co., - New Haven, Conn.**

conta  
detail  
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auto

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2730

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If You Use  
**Champion Lathes**

You'll see a difference in the quality and quantity of your work. They have the capacity and improved conveniences for the rapid handling of all lathe operations.

Our Catalogue of 10, 12, 14, 16 and 18 inch machines gives much useful information about the sizes and advantages of these tools.

**Champion Tool Works Co.,**  
2426 Spring Grove Ave., Cincinnati, Ohio, U. S. A.

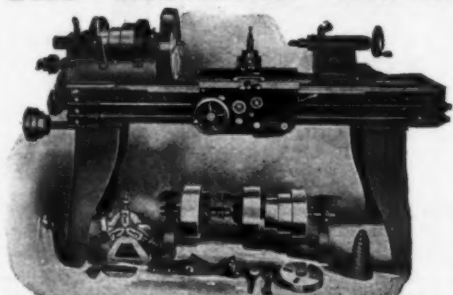


**Cincinnati  
Lathes**

contain every approved feature. Their quality manifest in every detail eliminates looseness, ill-fitting parts, wear and friction. We supply a **Quick Change** or **Standard Geared Feed Box** giving an unlimited range. All have **Double Wall Apron**, **Chasing dial**, **automatic stop** and **cabinet leg**.

**The Cincinnati Lathe & Tool Company**  
2730-32 Spring Grove Avenue, : : : Cincinnati, Ohio

## The Monarch Lathe

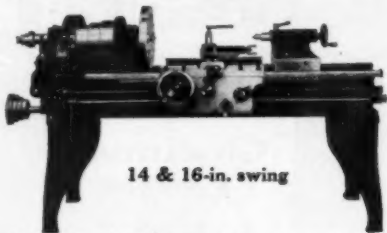


**High in Quality—Low in Price**

*Ask us to tell you more about them.*

**Monarch Machine Co., Sidney, O.**

## We Furnish

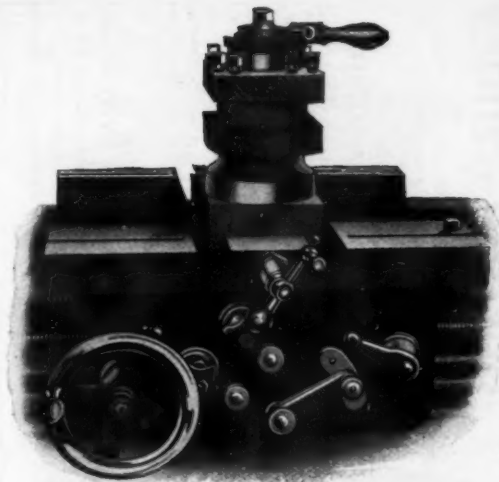


**14 & 16-in. swing**

**MIAMI VALLEY LATHES** with various styles of equipment. Our Standard Change Gear Lathe is one of the best on the market, and *THE* best at the price.

*You'll value description and prices. Send for them.*

**The Miami Valley Machine Tool Co.**  
840 Germantown St., Dayton, Ohio



## **A Big Lathe Improvement**

**Our Four Sided Tool Posts or Carriage Turrets  
can be fitted to any make of Engine Lathe**

These patented devices supply most of the advantages of the modern turret lathe, without in any way impairing the efficiency of the machine for its regular work. They give you the practical economy of the turret at only a fraction of the cost.

Each one of our four styles has our patented revolving and locking mechanism, which, by a single movement of the lever handle, forward and back, releases the turret, turns the next tool into place and securely locks the head in position for the next operation. All this the operator can do with one hand.

*Send for illustrated booklet, giving details and  
specific advantages of each style*

**FAY & SCOTT, Dexter, Maine**

# Besly Grinder

Faster and Better than Milling or Planing.  
Smaller Investment in Machine and Jigs. No  
Cutters to Sharpen and Replace.

## Investigate

Look over the work now faced  
on your Shapers, Millers, Plan-  
ers, Lathes and Surface Grind-  
ers, and send us some rough  
samples to be Besly-Ground, so  
you may **know** the Finish,  
Accuracy and Speed of the  
**Besly Grinder on your work.**  
No charge for the demonstra-  
tion.

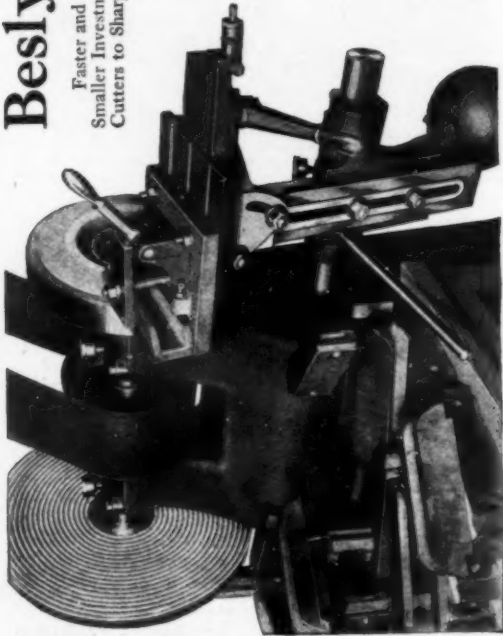
*Write*

**Chas. H. Besly & Co.**

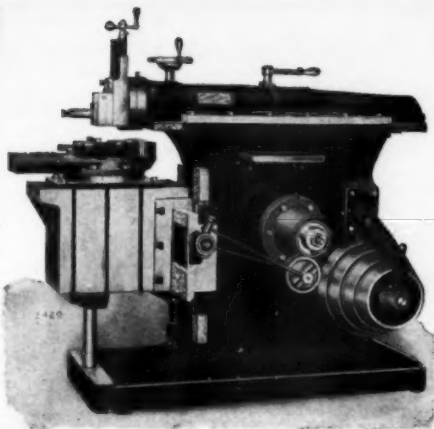
**120 N. Clinton St., Chicago, U.S.A.**

*for descriptive circular.*

**Largest Manufacturers of Disc Grinders  
in the World.**







## Shaper Reputation

**Is founded on the service they give—on  
actual daily results produced**

“Cincinnati” Shaper reputation was not established in a day—they had to prove-up to practical manufacturers their sterling qualities:—Dependability, Power, Superior Conveniences and Scientific Construction.

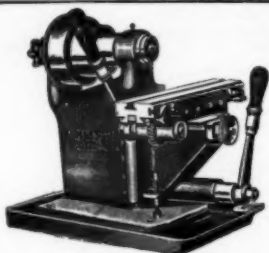
Each succeeding year adds to the “Cincinnati’s” record of maximum production at minimum cost. That it is the most powerful shaper of its stroke on the market is not a mere assertion, but a fact which we invite you to investigate.

*Send for our free Shaper book—it gives good reasons*

**The Cincinnati Shaper Co**

Colerain Ave. & Elam St., CINCINNATI, OHIO

## A Profit Producing Proposition



Is our New Model Bench Miller. Carefully designed, thoroughly well made, carefully tested, and a machine which will deliver the goods.

*Send for circular*

**The Carter & Hakes Co.**  
West Winsted, Conn., U. S. A.

AGENTS—Marshall & Huschart Mchry. Co., Chicago, St. Louis, Indianapolis; Motch & Merryweather Mchry. Co., Cleveland, Detroit, Cincinnati, Pittsburg; Henshaw, Bulkley & Co., San Francisco, Los Angeles, Oakland, Cal.

## Burke's Bench Miller



### A Seasoned Tool

The tool to buy if you want extreme accuracy and permanent alignment five years hence as well as now. In making this miller the greatest care is taken thoroughly to season all castings both before and after machining. We carry these frames and parts from six to eight months after work begins on them before the final finishing is done. The result is a tool that is accurate and will stay accurate as long as you use it. For precision work it has no equal.

Longitudinal feed, 4 in.;  
traverse feed,  $3\frac{1}{2}$  in.; vertical  
motion of knee 8 in.;  
table surface,  $3\frac{1}{2}$  x 12 inch.

**Burke Mche. Tool Co.**  
Conneaut, Ohio

# Greenerd Arbor Presses

are a mighty big little thing



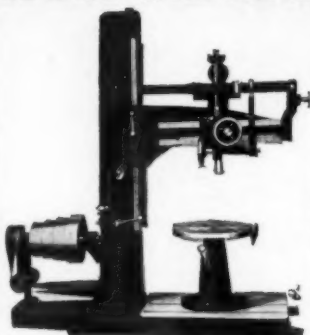
**Inexpensive**

**Effective**

Greenerd Arbor Presses save their cost many times a year.  
It will amaze you to know the number of different jobs a  
Greenerd Arbor Press will do.

**EDWIN E. BARTLETT, 336 A St., Boston**

## A Drill With All-Belt Drive



### The Gang Radial has the speed

This new driller has the speed and conveniences that make for constant maximum efficiency and capacity. Has driven a  $\frac{1}{2}$  in. high-speed drill, running 900 r.p.m., thru a 2 in. cast iron plate at the rate of 25 inches per minute. Reverses instantly, and is practically noiseless in operation.

*Compare carefully  
and then decide*

**The Wm. E. Gang Company**  
Cincinnati, Ohio

## Silver's 20" Drills

### Eight Styles

**LEVER FEED**

**LEVER and WHEEL FEED**

**POWER FEED and Automatic  
Stop**

**POWER FEED with Back Gears  
and Automatic Stop**

**Round or Square Base**

*Send for catalog*

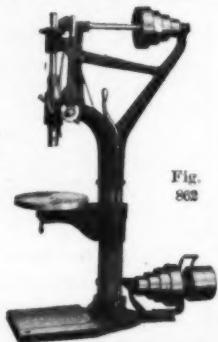
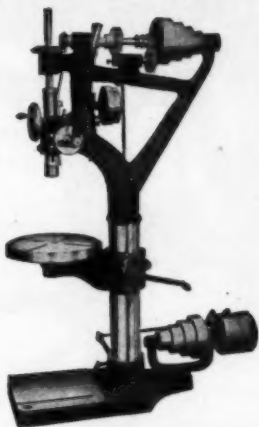


Fig.  
862

**The Silver Mfg. Co.,** 385 Broadway  
SALEM, OHIO

# Accurate Machine Tools



## Davis 20-Inch Drill

Furnished with Back Gear, Power Feed, Automatic Stop and Quick Return.

A first-class high-grade tool at a reasonable price.

Orders can be sent to us direct or through leading machinery dealers in all parts of the world.

*For further particulars address*

## The W. P. Davis Machine Co.

Rochester, New York, U. S. A.



Sold through High Grade Dealers at same price.

23"

Power

Price

A  
Ball Be

All  
All sha  
up wear

No  
grooved

A  
Accura  
to be th

Ca

Super

Kok



## 23" Superior Stationary Head Upright Drilling Machine

**Power Feed—Automatic Stop—Back Geared  
WEIGHT, 1,200 LBS.**

**Price \$120. F.O.B. Kokomo, Ind.**

A High Grade Machine with Crucible Steel Spindles, Ball Bearing Thrust and pair jam nuts for adjustment.

All racks and pinions are of steel and cut from the solid. All shafts are ground and top bearings are split for taking up wear.

Note the Rear Brace and the head which is tongued and grooved to column, also the large set of Back Gearing.

A machine built from the ground up with utmost care. Accuracy, capacity and quality guaranteed. We believe this to be the best 23 inch drilling machine on the market.

*Catalog illustrating all sizes 20 in. to 36 in. on request.*

**Superior Machine Tool Company**

**Kokomo,**



**Indiana**

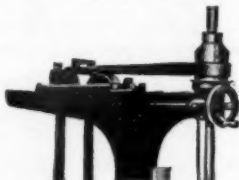
# High Speed Drilling

Not only necessitates absolutely perfect bearings in the Drilling Machine, but also an exact belt tension, varying according to size of drill being used—

**This is one of the many popular conveniences  
found on the**

*Avey*

## Ball Bearing Drilling Machine that is not found on other makes



The idler carriage is shifted forward or backward by screw feed controlled by a hand wheel at the front of the machine at the most convenient point.

This gives positive and precise belt tension required and is so easily accomplished that it is **not** "too much trouble" as is generally the case on other machines.

If you are interested to know about some of the other equally interesting features of this machine and production possibilities,

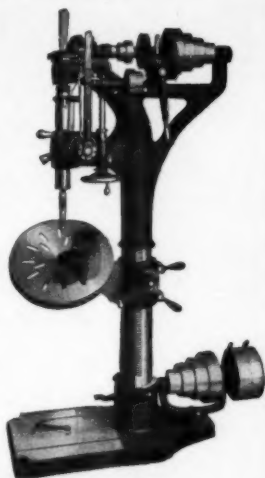
*Send for our booklet on "Speeds and  
Drilling Possibilities."*

**The Cincinnati Pulley Machinery Co.  
Cincinnati, Ohio**

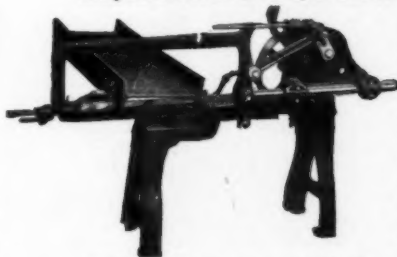


## The One Big Feature

You can drill holes at any angle at one setting, then duplicate at a 50% saving of time with our **Tilting Table**. Look at its heavy construction to stand up for rapid production with every convenience for the operator. Get our circulars and prices today.



**Royal Power Saws, 5 Sizes.**



For all kinds of work. They excel for speed and accuracy.

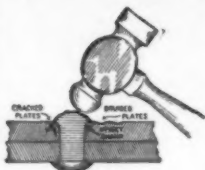
*For Sale by the best dealers. Get Circulars.*

# **FRONTIER IRON WORKS**

Department A  
Letchworth & Grant Streets, Buffalo, N. Y.

## What Results Do You Obtain

From Your Riveting?



**This**

**or**



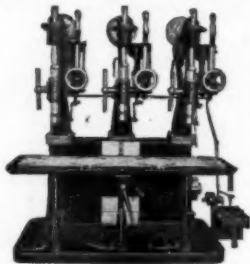
**This**

You can eliminate noise and vibration, improve the appearance of your product, and head rivets at the rate of one rivet per second.

Send for catalogue and sample which shows the work as done on a Grant Noiseless Rotary Riveter.

**The Grant Mfg. & Machine Co.**  
C. E. Station, Bridgeport, Conn.

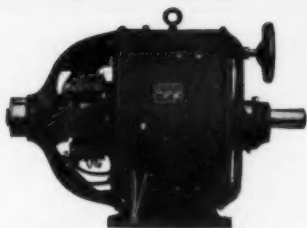
## Rockford Gangs



They not only drill, but they bore, ream, tap and face without removing work from jig.

*Write for descriptive matter*

**Rockford Drilling Machine Company**  
Rockford, Ill., U. S. A.



## **Reliance Adjustable Speed Motor**

### **The Ideal Drive for Your Machine Tools**

Every machine in your plant regardless of its make or type is capable of producing certain maximum results. You can get these results all the time if you will provide your machines with a drive which will meet the changing conditions which are constantly arising, especially in machine tool work.

The power, overload capacity and *really accurate* speed adjustments over wide ranges necessary to meet these conditions can be found only in the Reliance Adjustable Speed Motor of the armature shifting type.

This motor gives a constant horsepower output throughout ranges as great as one to ten. It is guaranteed to stand a 50% overload for one-half hour when running at any speed in either direction.

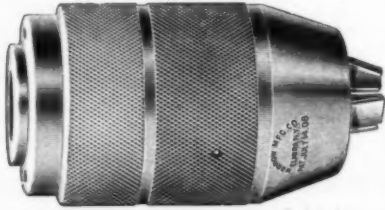
Turning the hand wheel shifts the motor armature, causing the speed to change quickly but smoothly to the exact point desired. No electrical controller is needed.

Write today for our Folder 10L which will show you in detail the advantages of Reliance Motors for your work.

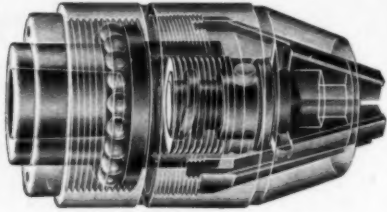
*We can also furnish Constant Speed Motors  
for either D. C. or A. C. circuits.*

**Reliance Electric & Engineering Company**  
**1050 Ivanhoe Road, Cleveland, Ohio**

# The Morrow Drill Chuck Can't Slip



It is not enough to say that the "Morrow" automatic, self tightening, drill chuck won't slip, the point is—they can't. Yet being equipped with a quick releasing device, are easily and quickly released by hand. Save Time and Money, by using the "Morrow" Hand Operated Drill Chuck. All parts are interchangeable.

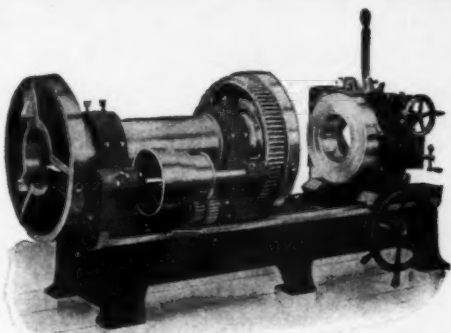


**Made in five sizes.**

*Write for particulars*

Made by the

**Morrow Manufacturing Co.**  
Elmira, N. Y.



## **Power Pipe Machinery Is Our Business**

**We know** something about it, for that is our life work.

**We make** 17 styles and sizes, belt or motor drive, for every need and for every diameter from  $\frac{1}{4}$ -in. to 18-in. pipe.

**We recommend** only that which is best suited to your peculiar work, in which you get the benefit of our long experience.

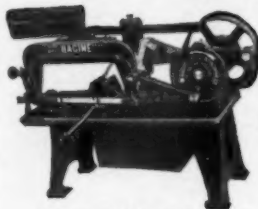
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*Will you submit your case to us?  
It costs nothing if we can't suit you*

---

**Bignall & Keeler Mfg. Co.**  
Edwardsville, Ill.

## High-Speed-Metal-Cutting Reduces Time Four Fold



Patented July 13-09

The Original Auto-  
matic Lift, Draw Cut

Cuts all Kinds and  
Shapes of Material

Cuts a 6" Bar of Machinery  
Steel in 26 Minutes.

Capacity 0 to 6-inch

Speed 125 R. P. M.

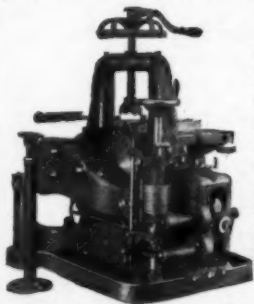
*Let us demonstrate by 30 days' trial—Write for Catalog*

**Racine Tool & Machine Company**

**Racine Junction, Wis., U. S. A.**

Simplex Tool & Supply Co., Boston, Eastern Distributors

## The Cost-Cutting Metal Saw



We are ready to convince you that the "Lea-Simplex" will cut more metal in less time and at less cost than any other cold metal saw. Write us for "A Little Common-Sense Shop Economics" which illuminates the metal sawing problem.

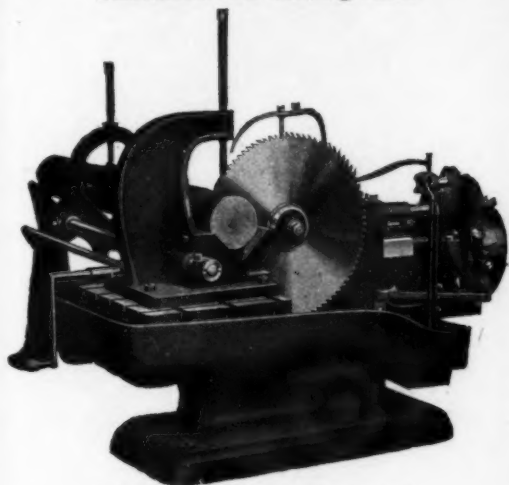
**LEA EQUIPMENT COMPANY**

**West and Cedar Sts.,**

**New York City**

# Cochrane-Bly Cold Saws

The fastest and most economical  
machines for cutting steel.



**No. 6—Capacity 8 1-2 in. Bars.**

The constant speed drive and positive gear feed give 10 cutting speeds, and afford *most favorable conditions* for the saw.

The *automatic stop* and *automatic quick return* with the *rack and pinion stock-feeding fixture*, provide for accuracy and are a great economy on heavy bars, as one man can move stock forward quickly and easily for duplicate cuts.

**We make—5 Sizes Metal Sawing Machines  
Saw Sharpeners  
Die Filing Machines.**

*Ask for Catalogue*

**Cochrane-Bly Company**  
Rochester, N. Y.



We carry a complete stock of all standard Milling Cutters and Gear Hobs for hobbing spur and spiral gears and worm wheels. Specials made to order for prompt delivery. We guarantee them absolutely and solicit a trial order as a demonstration of their accuracy and high efficiency.

**Barber - Colman Company**  
Rockford, Illinois



# It Has Made Good



The **Jacobs Improved Drill Chuck** because of its superior quality, "**has made good.**" The fact that our Chuck is the only Drill Chuck now purchased by many of the "**up-to-date**" manufacturers, is the strongest evidence of the superior quality of the **Jacobs Improved Drill Chuck**, and explains why "**it has made good.**"

**The Jacobs Manufacturing Company**  
32 Union Place, Hartford, Conn.



## Starrett Hack Saws

"If a saw and a half cuts a foot and a half, in a day and a half, how much will a dozen saws cut?" Same old example, but when you use STARRETT Hack Saws you'll find the answer. They cut quicker and last longer. Most good workmen have proved this many, many times.

Made of finest grade of steel, teeth sharp with square cutting points, set evenly—every tooth cuts. Tempered hard and tough—teeth will not shell off.

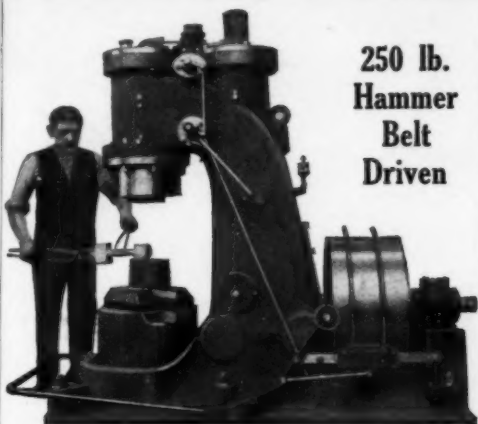
*Send for Catalogue 19HT and post yourself*

**The L. S. Starrett Co.**  
Athol, Mass.

NEW YORK,  
150 Chambers St.

CHICAGO,  
17 N. Jefferson St.





## **The Beche Hammer is Different**

Don't confuse this hammer with other types of so-called pneumatic hammers, as it has none of their defects and consequent annoyances. The *Beche* is a hammer and compressor combined, using the air at the temperature which it attains in operation, consequently giving up almost the full power that is put into it in compression.

**Result High Efficiency and Low Operating Cost**

*Capacity of a few sizes :*

66 lb. Hammer will forge 2" rd. or sq.

165 lb. Hammer will forge 3½" rd. or sq.

250 lb. Hammer will forge 5" rd. or sq.

Other sizes built are 350 lb. 500 lb. and 770 lb.

*Write for Catalogue*

**Nazel Engineering and Machine Works**

*(Sole Builders for United States and Canada)*

**5th and Luzerne Streets**

**Philadelphia, Pa.**



## Floor Operated Electric Traveling Cranes

do not require an operator in constant attendance and are frequently as well or better adapted for handling material than the more expensive cab operated.

We make all types of overhead cranes and hoists.

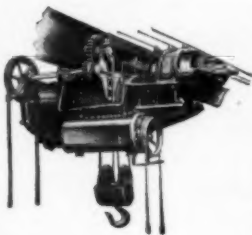
**The Euclid Crane & Hoist Company**  
Euclid, Ohio

## Why Be Downhearted

when our

## Hoists

will help you to  
make money.



Hoists, Trolleys,  
Cranes, Derricks,  
Hoisters and Buckets

**Victor R. Browning & Co.**  
Cleveland, Ohio

## **"We Need Money for our Pay Roll"**

It makes us laugh to think that **machine shops** will go on "**kickin**" about large pay rolls, send out "**dunn**" letters—"**we need the money**"—cut wages, etc., and still will let **10 or 20 men** lift, tug and pull drudge work that would be a "**cinch**" for "**the handiest tool in the shop**"—**Portable Floor Crane and Hoist** to do.

**Get Wise  
and  
Stop Your  
"Kickin"**



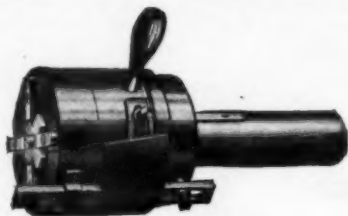
**INSTALL** this labor saving tool, and then laugh at the other fellow who can't tell a good thing when he sees it. Let him throw his money away, but **don't you do it**. We can't force you to save useless expense, but we **would** like to ship you this tool for 30 days' free trial. It will show you that you can't afford to be without it. If you don't like it, ship it home (the grass doesn't grow under them in our shop).

*Write for Prices—Not To-morrow—but To-day*

**Canton Foundry & Machine Co., Canton, Ohio**

## No More Power Is Necessary

For Cutting a Taper Thread than for a straight thread of equal diameter, where the **Geometric Taper Threading Die Head** is used.



The Chasers follow the taper of the work automatically, which greatly increases the output and gives a superior finish to the threads. At the end of the cut the Chasers release the work automatically, and no reverse motion of the machine is necessary, the Die Head being withdrawn without the Chasers touching the work.

One of these Die Heads, fitted to your Screw Machine or Turret Lathe, will give you accurate taper threads at slight cost.

Quotations promptly made.      Inquiries promptly answered.

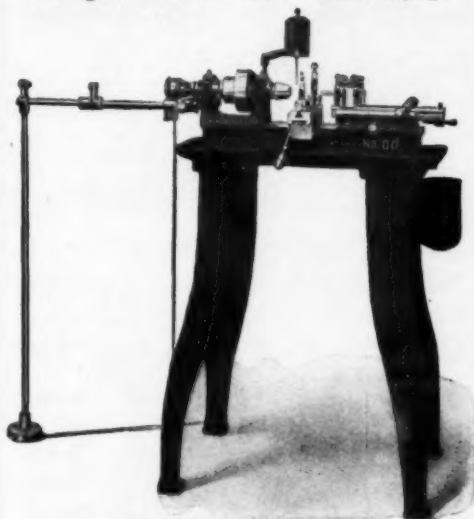
*Write Us*

**The Geometric Tool Company**  
New Haven, Conn.

# Garvin Screw Machines

**The Piece Worker's Choice**

Manufactured in five sizes. Best materials used.  
Investigate **Garvin** Screw Machines before buying.



**Garvin No. 00 Screw Machine—Wire Feed**

**Capacity—0 to  $\frac{1}{4}$  in. x 2 in. long.**

**Use Code—Banjo.**

**Send for Catalog "E"**

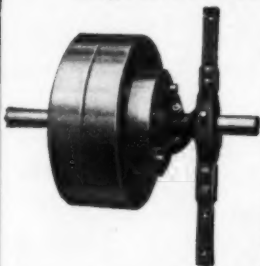
**FOR FURTHER } ASK YOUR DEALER  
INFORMATION } OR  
WRITE US DIRECT**

**Manufactured By**

**THE GARVIN MACHINE CO.**

**Spring and Varick Sts., New York City**

## Simple and Efficient Edgemont Friction Clutches



So powerful, they will not slip, and having no springs or delicate parts, they will not cause trouble under heavy duty. The patented rim friction operates easily and quietly, releasing instantly.

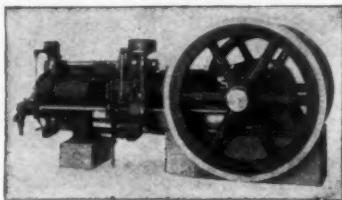
Cut shows our extended sleeve type for mounting wood, iron or steel Pulleys, Gears or Sprockets on the hub.

We also make this clutch **Split** so that it can be applied to any line shaft without taking it down or disturbing any other pulley. Our counter shaft clutches have been adopted by over 30 machine tool builders.

*Tell us what you need in clutches—we'll make 'em.  
Prices and information on request.*

**The Edgemont Machine Co.,** Ft. of Mound Street,  
DAYTON, O.

## Can You Reply "Yes" or "No"



**20 to 200 h. p.**

If you cannot answer that question and be sure you are right, our Bulletin No. 22 will prove a big help. It is a mighty plain talk from the user's standpoint, and is free for the asking.

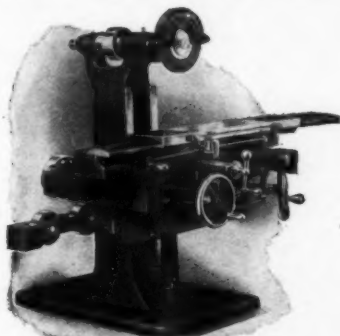
**The Elyria Gas Power Co.**  
Elyria, Ohio

to the  
question,  
"Is Gas  
Power  
the best  
power  
for me?"



# Save Money And Raise Quality!

A small investment in this Wilmarth & Morman  
surface grinder does the trick for much  
light milling and planing work



DIES? Why, this machine just eats them up if you wish, or it will take off only one-quarter of a thousandth. It does what you want to do, when you want to do it, and does it right.

Just say "give information regarding surface grinders" and it will put you in touch with a money saving proposition. We build other sizes, including hand feed machines.

Surface Grinders—Drill Grinders—Cutter and Reamer Grinders—Lathe Center Grinders—Wet Tool Grinders.

*Complete Catalog Free*

**Wilmarth & Morman Co.**  
575 Canal St., Grand Rapids, Mich.

# Knight Milling and Drilling

## Save 20 to 50 Per Cent Tool Running Costs

For drilling, boring, milling, or all three of these operations, at almost any desired angle, they are time and labor savers the first

They drill, bore or mill either plane of the table, at right angle, intermediate angle, and adjustment in the different positions easily and

### For Work with Many

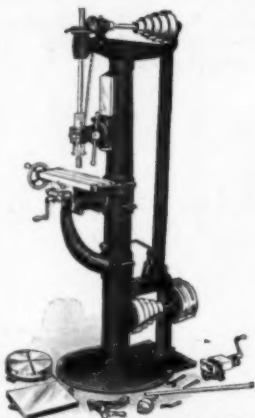
which other tools have difficulty in making dies, cams, models, etc., one of these two tools by its handiness, accuracy, economy, usefulness and effectiveness.

If you are interested in an economical character, we shall be glad to send you more complete description and different operations.

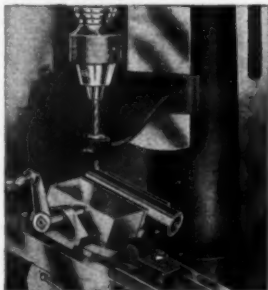
Made in three sizes Nos. 1, 2, 3

## W.B. Knight Machine Co.

St. Louis, Mo., U. S. A.



Milling and Drilling Machine No. 1.



Drilling hole in a sleeve at an incline, using drill guide to prevent drill from running.

# an Drilling Machines

## to Per Cent in Rm Work

boring, milling, or for any two  
se operations, at a single setting,  
red at angles, these machines  
r save the first class.

ore of either parallel with the  
e, at right angle to it, or at any  
e, and adjustments for operating  
ositions easily and quickly made.

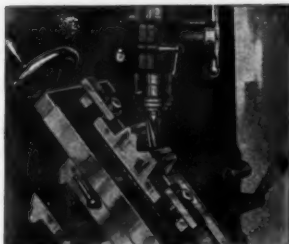
## rk w Many Angles

s have difficulty in machining, for  
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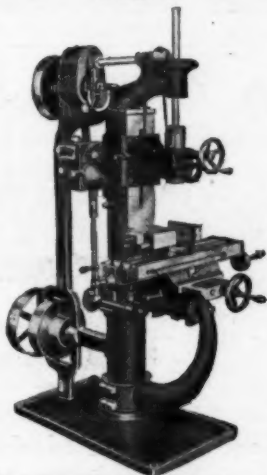
terested in an economy tool of this  
ill be glad to send you a folder giv-  
ing details and showing sixteen  
ns.

three in Nos. 1, 1½ and 2.

ight Machinery Co.  
Louis, U. S. A.



Milling V-block with table tilted to  
45 degrees.



Milling and Drilling Machine No. 2.

# Oily Chips and Shavings

**Yield a handsome saving when run thru  
a ball bearing Curtis Extractor**



**No. 400—Capacity: 2 Bushels**

When you stop to consider that often the amount saved in a few weeks by this machine is enough to cover its cost, you will see that it is not an expense, but a very profitable investment. Instead of using the oil just once, you use it 10, 15 or 20 times, according to the kind of work. The three sizes may be had with a simple steam attachment for cleaning waste, if desired.

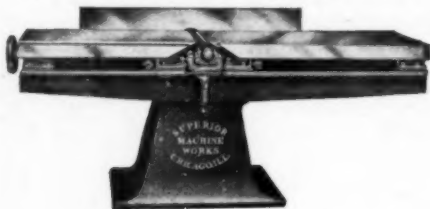
*Shall we send particulars and an interesting price?*

**Curtis Oil Extractor Company**

**95 Foster St., Worcester, Mass.**

# A Complete Line

of modern Machinery for Pattern Shops, and  
all wood working plants.



*See our line before buying*

**Jones Superior Machine Company**

**1726 Dickson St., Chicago, Ill.**

# Special Wood Working Tools

## For Pattern Shops

Machines selected for their precision, and adjustability. Built like machine tools, and designed primarily for pattern shop service.

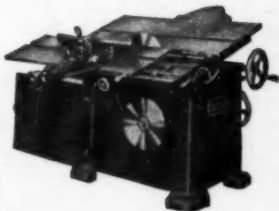
### "West Side" Band Saw

Steel wheels, which can neither break, warp, twist or spring; under cut hubs; self-oiling bearings; brass-bushed loose pulley; tilting table; all adjustments made by operator without leaving his position. A band saw widely known for its superiority of design and construction.



### Tannewitz Universal Double Saw Arbor

The last word in saw tables for accuracy and convenience. Gauges and adjustments for every possible requirement. A notable improvement upon a type of saw table conceded to be indispensable in every pattern shop.



### Porter 20-Inch Jointer

The highest grade jointer or hand planer in market. Patented guard and safety cylinder; specially grooved tables.

We outfit pattern shops complete, guaranteeing the accuracy and efficiency of every tool. Whether you want a full equipment or a single machine, you will find our service helpful.

*We shall be pleased to have you consult us*

## Chicago Machinery Exchange

Manufacturers' Exclusive Representatives

1219-1227 W. Washington Blvd., Chicago

Can furnish used machines, if desired, carefully rebuilt in our own shops and fully guaranteed.

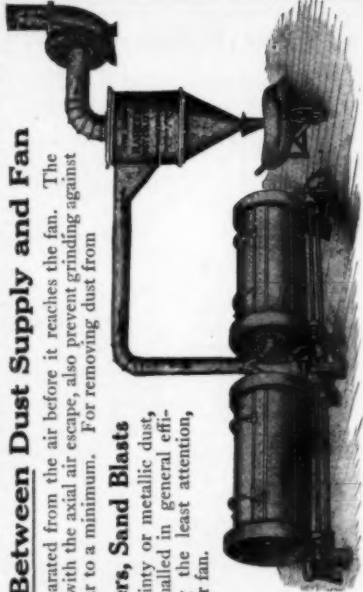
A fan that forces dust-laden air into a collector is a demonstration of the right thing in the wrong place, causing undue abrasion of fan parts and wear upon the collector walls.

# The Morse "Rarefied" Dust Collector

## Is Placed Between Dust Supply and Fan

so that all foreign matter is separated from the air before it reaches the fan. The vacuum or "rarefied" principle, with the axial air escape, also prevent grinding against the collector walls, reducing wear to a minimum. For removing dust from

**Emery Wheels, Polishers, Sand Blasts**  
or from anything that raises a flinty or metallic dust, the Morse "Rarefied" is unequalled in general efficiency and economy, requiring the least attention, cleaning or repairs to collector or fan.



*Write for Dust Collector  
Booklet*

**The Knickerbocker Co.,  
Jackson, Mich.**

# **Waste Washing Machine**

**Saves  
OIL**

**Saves  
WASTE**

**Just  
What's  
Wanted**



**For  
Practical  
Economy**

**American Tool & Machine Co.**

Incorporated 1864

**109 Beach Street, Boston**

# Why Not Save 50%

on a lot of your Drill Press work by

## Changing Tools Without Stopping the Machine

This is being done in many of the largest and best shops all over the country by the famous

### Wizard Chucks and Collets

Just like putting a turret head of unlimited range on your spindle.



The Wizard has a dozen absolutely exclusive features found in no other similar chuck.

### Let us send an outfit on trial

If not satisfactory return it at our expense. Tell us the size hole in your spindle and the sizes and kinds of tools you wish to use and we will do the rest.

### Will pay for itself in thirty days

Our new catalogue No. 3 describes the Wizard and other time and money saving tools with which you should get acquainted. Yours for the asking.

**The McCrosky Reamer Co., Inc.**  
Meadville, Pa.





## How to Save Money In Buying Reamers

You will save money if you use "StanaR" Adjustable Reamers for work requiring the maintenance of fixed standards of accuracy.

Their style of construction gives them the rigidity of solid reamers, consequently they are absolutely accurate—yet they are readily adjustable.

### "StanaR" Adjustable Reamers

Shield



Brand

A set of blades can be readjusted and reground many times, and when finally worn out, a new set can be obtained for the old body.

Isn't that more economical than throwing **whole** solid reamers away and buying **whole** new ones?

Carbon and High Speed Blades are interchangeable in the same body. Either kind furnished as desired for Hand, Shell and Chucking Reamers.

*Write for Catalog No. 19---It shows all styles with prices.*

# THE STANDARD TOOL CO.

Cleveland,--Sixth City



# **"Detroit" Drills**

## **Reamers Cutters**

and other small tools all  
bear our Trade-Mark,  
the high-efficiency sign.

A fair test of our drills  
made in your own plant  
will convince you that  
they run absolutely true  
from tip to shank and that  
they drill accurately the  
greatest number of holes  
without regrinding.

If you are willing to be  
convinced write for Cata-  
log "J." Select a trial or-  
der. It won't cost you  
anything if you're not  
satisfied.

**DETROIT TWIST  
DRILL CO.**

510-522 Fort St., DETROIT, MICH.



Every User of

# Twist Drills, Cutters and Reamers

Should have a copy of  
*Our New Catalogue*

BECAUSE it contains a lot  
of fresh information about Twist  
Drills, Cutters and Reamers.

BECAUSE in our new, thor-  
oughly modern factory we are  
making a line of these tools that  
are mighty interesting to up-to-  
date users, who appreciate the  
value of speed and economy in  
machine shop operations.

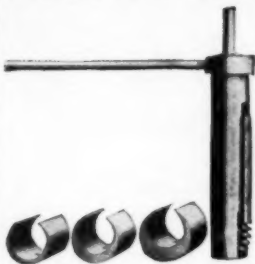
You'll be glad you asked for one  
What's your address? Ours is

**Lincoln - Williams Twist Drill Co.**

P. O. Drawer 880, Taunton, Mass.



## Keyways Milled On The Drill Press



The National Keyseater assures accurate duplicate keyways. The tools are made in standard sizes most commonly used from  $\frac{5}{8}$  to  $3\frac{1}{2}$  in. By the use of Bushings several diameters of bores can be keywayed with one tool. They are used in hundreds of shops all over this country and abroad. The tool can be applied to any ordinary drill press.

*Ask us to send you our catalog*

**National Machine Tool Co.**

128 Longworth St.,

Cincinnati, Ohio



HIGH DUTY  
**ROCKFORD**  
PUNCH PRESSES

### Are Good Presses

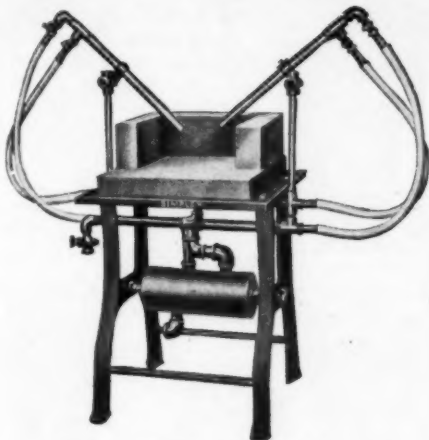
Because we are putting the money into correct engineering, finest materials, highest grade workmanship and the time for building and proper testing, as the builders of other highest grade tools are doing.

*Let us send you full details*

**Rockford Iron Works**

Rockford, Illinois

# Simplex Brazing Table



**Price \$50.**

This illustrates our Simplex Brazing Table. We have sold hundreds to satisfied customers. This is but **one** of the **30** styles and types of Simplex Furnaces for hardening, tempering, annealing, case-hardening and other treatment of steel and metals.

*Send for complete catalogue*

**Simplex Tool & Supply Co.**  
**Boston, Mass.**



# JUNK

Men do not get the caps  
Of Tucker's Positive Lock  
Compression Grease Cups  
They Won't Jar Off

For Automobiles and all  
kinds of machinery having ex-  
cessive vibration. Sample sent  
by mail on receipt of cash, check  
or money order.

Made in three sizes

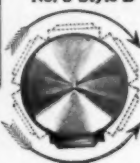
				Price
No. 000	$\frac{3}{4}$ in.	$\frac{1}{2}$ in.	pipe	\$0.30
No. 00	1 in.	$\frac{3}{4}$ in.	pipe	0.40
No. 0	$1\frac{1}{4}$ in.	$\frac{1}{2}$ in.	pipe	0.50

PATENTED JANUARY 11, 1910

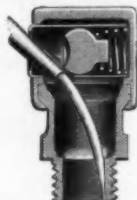
## Tucker's Oil Hole Covers



No. 5 Style B



Self Closing



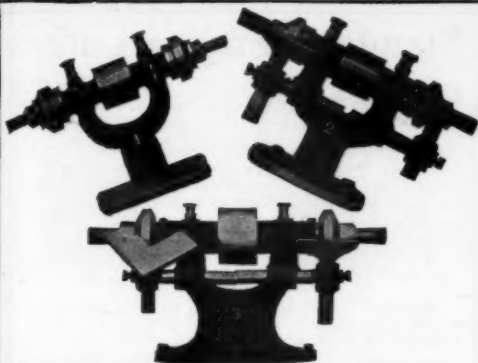
Style C, Self Closing

Note the indent of ball valve on styles B & C



Send for Catalogue of full line of Covers for  
all kinds of machinery having oil holes

**W. C. & F. C. Tucker,** Hartford, Conn.



## Partridge Emery Grinders

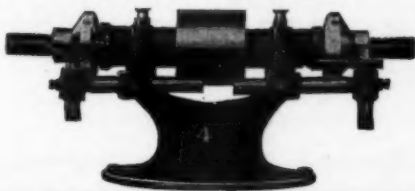
Here are four well-made Bench Grinders, adapted to light, medium and heavy work. Also furnished mounted on column. In addition, I make a high-grade heavy Floor Grinder of the cabinet type, thus being able to meet all demands for this class of tools. They are all well built, of the right materials, and have features of excellence that will interest you.

*Tell me your needs in this line, and I will gladly mail full description and quote interesting price*

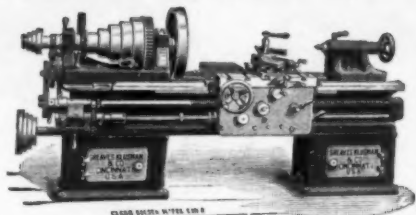
**E. O. PARTRIDGE**

2047-9 Lake Street, - - CHICAGO

Also Foot Presses and Tapping Machines



# Standard Engine Lathes



**Simple    Accurate    Powerful    Convenient**

Furnished with either standard cone or with 3-step cone double-back-geared, **carrying a wide belt**, with 18 spindle speeds and wide feed range.

**GREAVES, HLUSMAN & CO.**  
Cincinnati, Ohio, U. S. A.

When You Want to Buy  
**Second-Hand Machinery**  
Or if you have any for sale

Ask

**Buffalo Tool & Supply Co.**  
15 W. Swan St., Buffalo, N. Y.,

What they can do for you.  
They are equipped to make it interesting.



# The Value of Office Appliances

(The Magazine)  
to You

who are the buyers and users of office appliances, supplies and furniture—you who pay the bills and count the cost—is not based on theoretical plans or ideas. It is the more tangible value of dollars and cents. Its advertisements tell you just what, where and how to buy to simplify office methods, and to save you money in the doing.

If you are interested in installing the very latest devices for the handling of your detail work, Office Appliances offers the *only* medium of gaining a close technical knowledge of those on the market.

**This 140 Page Monthly Magazine of Office Equipment is a touch with the market place of the modern machinery of business;** a universal office appliance gazetteer, a manufacturers' index, a buyers' guide, a permanent exposition of all that is newest, oldest or best in the realm of business equipment.

Time spent in reading **Office Appliances** is in reality time saved. A few minutes with your Business Machinery Magazine represents **hours** of editorial time, and an infinite amount of patience and skill in the selective process.

## Pin a Dollar Bill

to this advertisement and mail to us today. That dollar bill will bring to your desk for eight months the one technical magazine of all the business world which will keep you, your auditor, your purchasing agent and your entire organization on the firing line of business—abreast of the times and in line with progress.

A sample copy is **free** for the asking, but why not pin the dollar bill to this advertisement **today**, and let us start the service at once?

You will see the returns on that dollar grow with each succeeding month.

**The Office Appliance Co.**  
**Plymouth Building, Chicago, Ill.**

# Portable Crank Pin Turner

## For doing work in place



### Built in Four Sizes

This Crank Pin Turner and Reborer is as accurate in its work as any shop tool, and as a time saver is worth many times its cost. The machine can be set up in perfect alignment. Four set screws center it true with the pin in the same manner as a lathe chuck. The feed is reversible while the machine is running, and has a rapid movement of the cutterhead along the slide. A range of variable feeds can be quickly obtained. The cutting tools are carried in a patent holder that grips them firmly. The reborer attachment is extra and is not included unless ordered.

*Write for our comprehensive catalog  
of Portable Tools; they are standard*

**H. B. Underwood & Company**  
1022 Buttonwood St., Philadelphia, Pa.

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50x3  
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10x2

Bol  
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Gas  
And

O. I.

No. 4  
12x5  
16x6  
tap

20 in.  
24 in.

24x24

No. 1  
No. 3  
No. 4

Gear  
Ham  
Keyse

## Second-Hand Machinery.

Lists of second-hand machinery, either for sale or wanted, will be published under this heading at the rate of **40 cents a line**, across the page, each issue, with a minimum charge of **\$4.00**. Sub-headings are counted as one line, but the name and address of advertiser are not included in the space charged for. Prices and full descriptions of the machines listed will be furnished by the parties offering them for sale. If you do not find what you require, use the slip inclosed with each book to make known your wants to the publisher.

### FOR SALE BY

**Cincinnati Machinery Co., 222 E. Second St., Cincinnati, O.**

Gear cutter, Brown & Sharpe, 36 in. automatic.  
Lathes, 14, 16, 18, up to 36 in., different makes.  
Milling machines, No. 2 Cincinnati, all feeds.  
Planers, 24x24 in. x 6 ft. Pond, 1 head, 36x36 in. x 12 ft., Cincinnati, 2 heads, 48x48 in. x 18 ft. Gray, 3 heads.  
Also other machine tools and woodworking machinery. Write us for what you want in machinery. We can furnish it.

### FOR SALE BY

**Western Machinery Co., 6th and Baymiller Sts., Cincinnati, Ohio.**

#### LATHES.

14x6 Shepherd, plain rest.	18x10 Nick. & Watt., comp. rest.
14x6 Ashton, hand, plain rest.	22x10 Nondescript, plain rest.
13½x6 Miami, comp. r. (nearly new.)	28x18 Niles, compound rest, taper.
14x16 American, c. r., quick change.	36x14 plain rest.
16x 6 Jones & Lamson, comp. rest.	

#### PLANER AND SHAPERS.

50x36x8 Pond, 3 heads.	16 in. Smith & Mills crank shaper.
26x26x8 Pratt & Whitney, 1 head.	20 in. Cincinnati, crank shaper.
10x24 traverse shaper.	

#### MISCELLANEOUS.

Bolt cutter, 2 in. National.	Hack saws, power.
Boring mill, vertical, 7 ft.	Hammer, helve, 40 lb. Bradley.
Cornice brake, 6 ft.	Hammer, steam, 250 lb. Bell.
Drill presses, plain, 20 & 22 in.	Turret screw machine, No. 4 P. & W.,
Emery grinders.	2½ in. hollow spindle.
Gas engines, 3 and 20 h. p.	Twist drill grinder.
And other machinery. What have you for sale or trade?	

### FOR SALE BY

**O. L. Packard Machinery Co., Chicago, Ill., and Milwaukee, Wis.**

#### LATHES.

No. 4½ Barnes, foot power.....\$ 45.	16x6 Reed, taper attachment..... 225.
12x6 P. T. & S., c. p. r..... 170.	72x22, cp. rest, with raising blocks
16x6 Lodge & S., qk. change gear,	to increase swing to 120 in.
taper attachment.....\$315.	

#### DRILLS.

20 in. Prentice.....\$ 88.	23 in. Prentice
24 in. Sibley & Ware..... 100.	

#### PLANERS.

24x24x5, 2 heads on cross rail.	24x24x6, Hendy.....\$300.
---------------------------------	---------------------------

#### MILLING MACHINES.

No. 1 Garvin universal, vertical attachment.....\$550.
No. 3 Cincinnati, plain positive feed..... 600.
No. 4 Cincinnati universal, old style.

#### MISCELLANEOUS.

Gear cutter, 36 in. Brainard.	Screw mche, ¼ in. P. & W., automatic.
Hammer, steam, 250 lbs. Bell...\$300	Shear, bevel, Thompson, for boiler
Keyseater, Morton, nearly new.	plate.....\$100.

## SECOND-HAND MACHINERY

### FOR SALE BY

**The H. A. Stocker Machinery Co., 566-72 W. Randolph St., Chicago  
610 Merrill Building, Milwaukee, Wis.**

Something in this List ought to interest you. Let us know what it is.

#### LATHES.

- |  |                                       |
|--|---------------------------------------|
| 12x6 Davis (new, but reduced price).   | 20x12 Greaves & Klusman, comp.        |
| 14x6 Hamilton, compound rest.          | rest, turret on shears, chuck fitted. |
| 14x6 LeBlond, good order.              | 21x10 Bradford, comp. rest, taper     |
| 15x6 Von Wyck, c. r. and chuck         | attachment, fine order.               |
| 15x5 Star, chuck fitted.               | 22x10 Flather, c. r. and chuck.       |
| 16x6 Bradford, compound rest.          | 30x14 Fifield, compound rest.         |
| 16x6 Davis c. r. (new, reduced price.) | 32x16 Davis, double back gears        |
| 16x6 Davis c. r. and tap., reduced pr. | (new, reduced in price).              |
| 16x6 L. & S., c. r., g. c. g.          | 39x12 Putnam, compound rest.          |
| 16x6 Reed, c. r. and taper.            | Bench lathe, Pratt & W., with large   |
| 18x9 Springfield, c. r. and taper.     | assortment of tools.                  |

#### SHAPERS.

- |                                     |  |
|-------------------------------------|--|
| 12 in. Walcott, crank, good order.  | 20 in. Fitchburg, trav. hd., 2 tables, |
| 16 in. Queen City, new, reduced pr. | fine condition.                        |
| 16 in. Kelley.                      | 22 in. Walcott, triple geared.         |
| 20 in. Cincinnati, back geared.     | 24 in. Hendy, triple geared.           |

#### PLANERS.

- |  |   |
|--|---|
| 72x72x14 Niles, 4 hds., A-1 condition. | 36x30x12 Sellers, old style, low price. |
| 48x48x20 Belmer, 4 heads.              | 32x32x10 Gray, 2 heads.                 |
| 44x44x12 Pond, 2 heads.                | 32x32x12 Ohio, 2 heads.                 |
| 40x38x14 Putnam, old style, low pr.    | 30x30x8 Pond, 1 head.                   |
| 36x36x12 Gray, 2 heads.                | 30x30x12 Belmer, 2 heads.               |
| 36x36x14 Belmer, 2 heads.              | 30x30x10 Flather, 3 heads.              |
| 36x36x10 Gray, 2 heads.                | 28x26x8 Whitcomb (new, reduced pr.)     |

#### MILLING MACHINES.

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| No. 6 Whitney, hand.              | No. 5 Garvin, plain back geared.    |
| No. 10 Pratt & Whitney, hand.     | No. 1 Cincinnati, plain head, univ. |
| No. 3 Waltham, bench.             | No. 1 Kempsmith, b. g. universal.   |
| No. 3 Cincinnati, plain.          | No. 2 Thurston die miller.          |
| No. 13 Garvin, plain.             | No. 4 Becker, univ. (new, low pr.)  |
| No. 0 LeBlond, plain back geared. |                                     |

#### UPRIGHT AND RADIAL DRILLS.

- |                                  |  |
|----------------------------------|--|
| 2½ ft. Fosdick National.         | 38 in. New H. sl. hd., bk. gr., p. fd.       |
| 3 ft. Fosdick standard.          | 35 in. Blaisdel, sl. hd., bk. gr., p. fd.    |
| 5 ft. arm Western, universal.    | 28 in. Snyder, sl. hd., bk. gr., p. fd.      |
| 5 ft. Bickford, plain, gear box. | 25 in. Prentice Bros., sl. hd., b.g., p. fd. |
| 4 ft. Bickford, plain cone.      | 20 in. and smaller.                          |

#### SENSITIVE DRILLS.

1 to 6 spindles, various makes.

#### POWER PRESSES.

- |  |  |
|--|--|
| No. 1½ Bliss, cam drawing.             | No. P1 Ferracute, 1½ stroke.           |
| No. 20 Bliss, inclinable.              | No. 3 American Can, o. b. i., 2 in. s. |
| No. 36 Niagara, 1½ in. stroke.         | No. 2 American Can, o. b. i., 2 in. s. |
| Farrell reducing, 12 or 15 in. stroke. | No. 166 Consolidated, st. sided, dbie. |
| C82 Ferracute, armature notching.      | crank, 6 in. str. 66 in. bet. up-      |
| C94 Ferracute, armature notching.      | rights, wt. 23,600 lbs.                |

#### TURRET LATHES.

- |                                     |                                 |
|-------------------------------------|---------------------------------|
| Libby, geared head, fine condition. | 7 smaller sizes, various makes. |
| 20 in. Fay & Scott, universal.      |                                 |

#### BORING MILLS—VERTICAL AND HORIZONTAL.

- |  |                                     |
|--|-------------------------------------|
| 10 ft. Niles, 2 heads.                   | Fitchburg horizontal, 36 in. swing. |
| 76 in. Betts, 2 heads.                   | 34 in. Colburn, swivel turret.      |
| 44 in. Colburn, pl. table, 4 chuck jaws. | No. 2 Barrett cylinder borer.       |
| 48 in. Colburn, pl. table, 4 chuck jaws. | 42 in. Niles car wheel borer.       |
| 53 in. Colburn, 2 heads.                 |                                     |

#### BEMENT SINGLE END PUNCH AND SHEARS.

- |                                    |                                      |
|------------------------------------|--------------------------------------|
| 42 in. throat, capacity 4x1½ in.   | Cincinnati sgl. end punch and shear, |
| Humphrey sgl. end punch and shear, | 8 in. throat, capacity 1½x1 in.      |
| 36 in. throat, capacity 1½x1 in.   |                                      |

## SECOND-HAND MACHINERY

### H. A. Stocker—Continued.

#### SCREW MACHINES.

No. 2 Pratt & Whitney. 14 in. Cleveland automatic.  
 No. 2½ Pratt & Whitney. 14 in. Cleveland automatic.  
 No. 51 National-Acme automatic.

#### MISCELLANEOUS.

Bolt cutter, 1½ in. Schlenker.  
 Bolt header, 4 in.  
 Centering machine, 4 in. Whiton.  
 Cold saw, No. 4 Birdsboro, 6 ex. saws.  
 Gear cutter, 26 in. Brown & S., auto.  
 Gear cutter, 30 in. Flather.  
 Gear cutter, 34 in. Whiton, auto.  
 Gear cutter, 50 in. Gould & E., auto.  
 Gear hobbing machine, Reynolds.  
 Gear hobbing machine, S. & S. worm.  
 Grinder, No. 3 B. & S. universal.  
 Hammer, helve, 40 lb. Bradley.  
 Hammer, helve, 500 lb. Bradley.  
 Hydraulic press, 40 ton.  
 Hydraulic press, 100 ton with pump.  
 Pipe machine, 4 in. Stoeber.

### FOR SALE BY

#### Buffalo Tool & Supply Co., 15 W. Swan St., Buffalo, N. Y.

Blower, pressure or vacuum, Lehman, capacity 160 ft. free air.  
 Compressor, Hall, steam drive, capacity 325 ft. per minute, A.1 condition.  
 Cut-off saw, Nutter Barnes, 3 in. capacity.  
 Gas engine, 4 h. p., new.  
 Grinder, universal, Landis Tool Co., 10 in. swing, 20 in. between centers.  
 Grinders, Buffers, Polishing Heads, &c., of all sizes.  
 Motor, electric, d. c., 500 volts, 15 h. p.  
 Motor, Westinghouse, 60 cycle, 3 phase, 220 volts, 10 h. p., variable speed.  
 Radial drill, Niles, 66 in.  
 Upright drill press, 24 in., square base, w. & l. feed, back gear, p. f.

To close out these Machines, we will refuse no reasonable offer. We must have the room for our own line of goods, consequently will sacrifice. All the Machines are in first class working order.

### FOR SALE BY

#### Fred. C. Dickow, 33 So. Desplaines St., Chicago, Ill.

Lot of used machinery which I am closing out at special low cash prices:

#### FOX AND TURRET LATHES.

14 in. turret, first-class cond. \$ 90.00 14x5 Fox lathe, chasing bar... \$ 75.00  
 14x5½ Am. Fox, bk. gd., c. r. 110.00 14x5 Am. Fox, chas. bar (2) ea. 90.00

#### PUNCH PRESSES.

No. 2 Norton Bros., inclined \$ 70.00 No 18 Bliss inclinable, each... \$ 75 00  
 No. 2 Norton B., straight legs 75.00 No. 30 Crosby (2) each... 85.00  
 No. 40 Crosby, 2000 lbs. 115.00 Small bench press... 22.50

#### ARCH, HORNING AND WIRING PRESSES.

No. 40 Swaine, arch, bk. gd. \$175.00 Brown, arch, 2600 lbs. \$125.00  
 No. 380 West, horn and wiring, adjustable table 150.00 No. 21 Crosby, horn and apron 85.00

#### SHAPER.

14 in. stroke Rockford crank, vise and counter, practically new... \$185.00

#### MISCELLANEOUS.

Air compressors, from \$17.50 to \$25. Presses, foot, cap. 3x4 in., each \$18.00  
 Brake, 6 ft. \$35.00 Press, foot, No. 3 Williams & Bliss 25.00  
 Drill grinder, wet, New Yankee style F. 45.00 Press, foot lever, No. 10 Bliss, inclinable 45.00  
 Drill press, 6-spindle turret 25.00 Press, foot lever, No. 87 Bliss, 55.00  
 Drop hammer, No. 1 Bliss, 18.00 Square shear, 20 in. 18.00  
 Groover, power, 16 in. Canton. 20.00 Square shear, 30 in. 22.50  
 Hack saw, power 8.50

Grinder and buffing machines, blower, electric grinder, etc.

Nearly all of the above machines are in first-class condition; have been thoroughly overhauled in my machine shop.

I have many other machines not here listed. Let me know your wants.

## SECOND-HAND MACHINERY

### FOR SALE BY

**The E. L. Essley Mchy Co., 555-557 Washington Blvd., Chicago, Ill.**

A partial list of used machinery for quick delivery. We have a large stock of new machine tools not listed here. If you don't find here what you want, write us, giving sizes and detail. Our stock is changing constantly and we may have what you want. Special prices quoted this month on account of limited room.

#### DRILLS.

- 4 spindle Quint turret drill.
- 6 spdl. No. 3 Garvin, mult., table fd.
- 4 spindle 20 in. W. F. & J. Barnes gang drill, all spdls. p. f., 1 sp. b. g.
- 4 spindle Barnes Drill Co.'s all gd. gang drill, b. g. and p. f.
- 3 spindle H. & W., h. s., sens.
- 22 in. Bickford, sliding head.
- 18 in. Baker Bros. high speed (2).
- 26 in. W. F. & J. Barnes, sliding head, drill complete; fine condition.
- 28 in. Hamilton, sl. hd., b. gd., p. f.
- 28 in. Moline, sliding head, upright.
- 32 in. Prentice Bros., sliding head.
- 1 spindle H. & W., sensitive.
- 3 ft. Dreses, plain radial, spd. box.
- 25 in. Barnes sta'ry hd., b. g. and p. f.
- 14 in. Barnes, lever feed, (8).

#### ENGINE LATHES.

- 14x6 Flather, compound rest.
- 14x6 Bradford, comp. rest.
- 14x6 American, plain rest.
- 14x7 Blaisdell, taper attachment.
- 15x6 Walcott, back geared, rebuilt.
- 16x6 Muller, hollow spindle, p. c. f.
- 16x6 American, c. r., late pattern.
- 21x10 Fifield, compound rest.
- 28x26 Fitchburg, b. g., c. r., blocks to swing 44 in.; good order.
- 34x14 Fitchburg, c. r. & taper.
- 30x16 New Haven, complete.

#### MISCELLANEOUS LATHES.

- No. 21 Garvin, plain head, Monitor,
- 13-16 in. hollow spindle.
- No. 2 12 in. Foster plain hd. Monitor.
- 14 in. Monitor, plain head, F. K.
- 2x24 in. J. & L., flat turret, latest.
- 12 in. Gisholt, standard turret, comp.
- 30 in. x 8 ft. P. & W., pl. hd. chucking lathe, 24 in. 4-j. chlk., p. f. to t. s.
- Pearson b. g. hub machine, like turret lathe, 24 in. h. s.

#### PLANERS AND SHAPERS.

- Planer, 16x16x3 Putnam, 1 head.
- Planer, 24x24x6 Pease, 1 head.
- Planer, 30x30x8, 1 head.
- Shaper, 16 in. Hendy, friction.
- Shaper, 14 in., G. & E., s. g., crank.
- Shaper, 24 in., b. g., Q. City, crank.

#### SCREW MACHINES.

- 2 in. Cleveland, standard automatic, 5 hole turret.
- 3 in. Cleveland, plain automatic.
- 6-4 in. Cleveland, automatic turret.
- No. 12 Garvin, w. f., a. c., 2 in. cap.
- 7-16 in. Cleveland automatic.
- No. 2 Warner & S., complete.
- No. 2 Foster-K., complete, (7).
- 2 in. Bardons & O., g. f. h., p. feed to turret.
- No. 2 Pearson, complete, 1 1/2-16 in. w. f. capacity.

#### MISCELLANEOUS.

- Air hammer, No. 66 Ingersoll-Rand, long stroke, nearly new.
- Baling press, Champion, for baling scrap tin or iron.
- Blower, steel, No. 10 Sturtevant, 7 ft. high, 18 in. outlet.
- Blower, No. 4 Root, positive.
- Bolt pointer, 1 in. Adams.
- Buffing lathe, 2 h. p. motor drive, 110 volts, d. c.
- Cold saw, 20 in. Burke.
- Cold saw, No. 4 Keystone, 4 1/2 in.
- Cold saw, No. 14 Higley, fine order.
- Cranes, portable shop, 1 & 2 ton.
- Gear cutter, 24 in. Brainerd, s. & b.
- Gear hobber, 12 in. No. 1 Farwell.
- Grinder, disc, No. 10 Besly.
- Grinder, cutter & reamer, Cincinnati.
- Grinder, plain, Brown & S., 12x18 in.
- Grinder, cock, W. & S., single spdl.
- Grinder, 20x3 in. Diamond, single wheel, wet.
- Hammer, steam, 1,250 lbs. Morgan, single frame.
- Horizontal boring & drilling machine, Niles, 4 in. bar, very heavy.
- Keyseater, No. 4 Morton, 18 in. stroke, cap. up to 2 1/2 in.; complete.
- Miller, No. 3 American plain. b. g.
- Miller, No. 8 B. & S. plain.
- Miller, No. 2 Garvin, univ.
- Miller, No. 3 Kempsmith, plain.
- Pipe mche., 4 in. Borden, complete.
- Profiler, 2 spindle, Ames, fine order.
- Pulley boring machine, 36 in. Streit.
- Punch press, V. & O. double crank, st. s. with power feed rolls, fine.
- Punch presses, Nos. 2, 3 & 4 Am. Can Co., o. b. inc.
- Punch press, No. 4 Walsh, o. b. inc.
- Punch or shear, cap. 1 1/2 in. Hercules, 11 in. throat, gd. agl. end, wt. about 10,000 lbs.
- Rivet spinner, 3 in. National.
- Riveter, 3 in. Shuster, deep throat.
- Shaft straightener, power, for 5 in. shafts, 24 ft. long; heavy, large mch.
- Threading mche., roll, Rudolphi & K.

## SECOND-HAND MACHINERY

### FOR SALE BY

Joseph T. Ryerson & Son, - 16th and Rockwell Sts., Chicago  
POWER PUNCHES.

Item.

- H618 Fisher coping and notching machine.  
H619 Whiting, 15 in. archt. jaw punch, cap.  $\frac{1}{2}$  in., plate and angle shears.  
H287 Cleveland 90 in. mul. punch, cap. thirty 13-16 in. holes in  $\frac{1}{2}$  in.  
H498 Royersford double end, 7 $\frac{1}{2}$  in. throat; punch  $\frac{1}{2}$  in.; shear 6x $\frac{1}{2}$  in.  
H634 Williams & White, 12 in. plain jaw punch, cap.  $\frac{1}{2}$  in., with bar shears.  
H613 Long & Allstatter 15 in. throat, cap.  $\frac{1}{2}$  in.

### POWER SHEARS.

- H291 Cleveland 10 ft. gate shear, 36 in. gap, capacity 3-16 in.; motor drive.  
H 59 H. Pels & Co. Johns beam shear; cap. 12 in. 35-lb. beams; belt drive.  
H504 H. Pels & Co., Johns T 40 beam shear; capacity 15 in., 60-lb. beams.  
H593 Lennox circle shears; cuts  $\frac{1}{2}$  in. heads, 42 in. diameter.  
H601 Thompson stroke type, bevel shears, cap.  $\frac{1}{2}$  in. plate.

### PLANERS.

- |                                       |  |
|---------------------------------------|--|
| H215 Gray, 36x36x10, 2 hds.; motor.   | H166 Bement, 36x36x7, 2 hds.; b. dr.                 |
| H158 Pond, 26x26x6, 1 hd.; belt d.    | H167 Sellers, 42x42x6 $\frac{1}{2}$ , 2 hds.; b. dr. |
| H163 Sellers, 36x36x7, 1 hd.; belt d. | H169 Sellers, 42x42x8 $\frac{1}{2}$ , 2 hds.; b. dr. |

### LATHES.

- H641 Fay & Scott 18x8, friction head, turret on shear.  
H306 Gisholt 28 in. turret, 3 $\frac{1}{2}$  in. hole in spindle.  
H507 Gisholt 34 in. turret, 4 $\frac{1}{2}$  in. hole in spindle.  
H234 Hendey, 18x10, quick change gear, hollow spindle; com. rest; p. c. f.  
H595 Rahn-Carpenter, 20x10, taper attachment, hollow spindle, comp. rest.

### DRILLS.

- H516 Barnes, 26 in. adj. head, power and hand feed.  
H610 Dallett No 2, portable rope drive.  
H624 Foote-Burt No. 1, six spindle, sensitive.  
H517 Snyder, 25 in. adj. head, power and hand feed.  
H198 Sigourney, 4 spindle, sensitive.

### SHAPERS.

- |                                   |                                    |
|-----------------------------------|------------------------------------|
| H511 Hendey 15 in., friction.     | H640 Steptoe, 14 in. crank.        |
| H512 Smith & Mills, 15 in. crank. | H557 J. G. Blunt 16 in., friction. |

### PNEUMATIC RIVETERS.

- H605 Albree toggle, 26 in. reach, capacity 1 in. rivets.  
H493 Allen 17 $\frac{1}{2}$  in. reach, 15 in. gap, cap. 1 in. rivets.  
H612 Allen 36 in. reach, 20 in. gap, cap. 1 $\frac{1}{2}$  in. rivets.  
H621 Chicago Pneu. Tool 12 in. reach, 15 in. gap, cap.  $\frac{1}{2}$  in. rivets.  
H491 Hanna patented lever; 25 in. reach; 15 in. gap; capacity  $\frac{1}{2}$  in. rivets.

### COMPRESSORS.

- |                                     |                                   |
|-------------------------------------|-----------------------------------|
| H620 Bury 8x8, belted.              | H603 Chgo. Pneu. Tool 8x8 belted. |
| H563 Bury 10x10, belted, with tank. |                                   |

### MILLING MACHINES.

- |  |  |
|--|--|
| H637 W.R. Eynon No. 1 $\frac{1}{2}$ , universal, index head. | H629 Cincinnati No. 4 plain, 3 geared feeds. |
| H636 Garvin No. 4 plain, 3 feeds.                            |  |

### MISCELLANEOUS.

- H238 Bending and straightening machine, Cosgrove, capacity 15 in. beams.  
H608 Bolt cutter, double, 1 $\frac{1}{2}$  in. Acme, class A.  
H213 Boring and drilling machine, horizontal, 4x27x60 in., Beaman & Smith.  
H609 Cold saw, No. 18 Wagner, 16 in. diameter blade.  
H501 Cold saw, Q. & C. No. 2A universal.  
H486 Planer, plain rotary, 26 in. head, No. 1 Newton, arranged for motor.  
H646 Press, geared, American Can Co. No. 4B.  
H208 Profiling machine, No. 2 Pratt & Whitney.  
H647 Screw machine, hand,  $\frac{1}{2}$  in. Pratt & Whitney.  
H541 Screw machine, 1 in. Cleveland automatic.  
H538 Screw machine, 2 in. Cleveland automatic.  
H623 Tapping machine, No. 1 Garvin automatic.

## SECOND-HAND MACHINERY

### FOR SALE BY

**The Motch & Merryweather Machinery Company,**  
**707-715 Lakeside Av., N. W., Cleveland, Ohio**  
**Branches: Detroit, Cincinnati, Pittsburg.**

#### Refitted Machine Tools:

##### BORING MILLS.

- 30 in. Bullard, plain table, (2). 42 in. Bullard vertical, 1 turret and  
 3½ in. bar, Bement-Miles horizontal. 1 swivel head.

##### BROACHING MACHINE.

No. 1 vertical Standard.

##### DRILL PRESSES—UPRIGHT.

- 20 in. Barnes. Dallet portable, (2).  
 24 in. Bickford, sliding head. 3-spin. Bickford, back gears, power  
 26 in. New Haven, sliding head, (2). feed, pump and tank.  
 36 in. New Haven, sliding head. 6-spindle Quint turret.  
 28 in. Rockford, good as new.

##### DRILLS—RADIAL.

- 3 ft. Fosdick. 4 ft. Box, half universal.  
 4 ft. Fosdick. 5 ft. Pond, heavy, box table.  
 4 ft. Prentice plain, box table. 6 ft. Pond, heavy, box table.

##### GEAR CUTTERS.

- 36x10 in. x 3 p., vertical type, spur, 60 in. Gould & Eberhardt, for spur  
 Gould & Eberhardt, (4). gears.  
 48x10 in. x 3 p. Gould & Eberhardt.

##### GRINDERS.

- 16x48 in. auto. surface. No. 11 Brown & Sharpe, plain.  
 No. 1 Landis internal. No. 60 Heald, cylinder.  
 No. 3 Landis universal, (2). No. 2 Leland & Faulconer, wet tool.  
 No. 24 Landis plain, swivel head. "A" Yankee drill grinder.

##### LATHES.

- 12x5 Young, comp. r., good as new. 20x8 Flatler, 4 step cone, belt feed,  
 14x6 Hendey, plain rest, taper att. compound rest.  
 14x6 Prentice, plain rest, taper att. 22x15 Pond, compound rest.  
 16x6 Flatler, plain rest, taper att. 26x14 New Haven, 20 in. chuck, c. r.  
 18x8 Lodge & Davis, comp. rest, 36x16 Pond, 4-jaw chuck, back gd.  
 taper att. 36x24 New Haven, c. rest, back. gd.  
 18x10 Schumacher & Boye, comp r., 48x30 Niles, triple geared, comp.  
 belt feed, chuck fitted. rest, raising block 54 in.

##### MILLING MACHINES.

- No. 1 Eynon. No. 3 Cincinnati, cone type, belt  
 No. 14 Browne & Sharpe, plain, back feed.  
 geared, rack feed, (2). No. 3 Owen, plain.  
 No. 2 Davis & Egan, plain, B. & S. No. 34 Garvin, plain.  
 index centers. 24 in. Ingersoll slab miller, remova-  
 No. 13 Brown & Sharpe, plain, ble housings.

##### PLANERS.

- 10 in. Busch, crank, swivel vise. 48x48x10 Detrick & Harvey, open  
 22x22x4 New Haven. side, 1 rail, 1 side head.  
 24x24x14 Gray, 1 head. 48x48x16 Detrick & Harvey, open  
 30x30x8 Detrick & Harvey, open side, side, 1 rail, 1 side head.  
 1 rail, 1 side head.

##### PRESSES.

- No. 4 Bliss, punch. Inclinal (2).

##### SHAPERS.

- 14 in. Lodge & Davis, sgl. gd. crank. 20 in. Hendey.  
 15 in. Hendey, tilting table. 24 in. Hendey.  
 16 in. Gould & E., b. g., crank. 24 in. Morton, drawstroke.  
 16 in. Cincinnati, back geared. 26 in. Cincinnati, shifting belt.  
 16 in. Flatler, gear box.

##### TURRET LATHES.

- 2x24 Jones & Lamson, latest type. 28 in. Gisholt, rapid traverse.  
 7x14 Potter & Johnston. 44 in. Grant chucking lathe.  
 16x5 Mueller, plain rest, turret on No. 3 Pratt & W., hub forming  
 shear and chuck. attachment.  
 24 in. Lodge & Shipley screw mach. No. 1 Krauth & Benninghofen.



## SECOND-HAND MACHINERY

### The Motch & Merryweather Machinery Co.—Continued.

#### PUNCHES AND SHEARS.

Horizontal straightening machine, belt driven.

#### MISCELLANEOUS.

Belt lacer, 17 in. Peerless.

Cold saw, No. 20 Higley.

Hammer, friction board drop, 1,200 lbs. Billings & Spencer.

Keyseater, 24 in. Morton.

Keyseater, No. 2 Baker, latest type.

Pipe machine, 6 in. Saunders.

Pipe machine, 12 in. Curtis.

Planer, Morton portable, complete with motor.

Slotter, 8 in. Newton.

### FOR SALE BY

**Frank Toomey, Inc.,** • **127 N. Third St., Philadelphia, Pa.**

#### HAMMERS AND RADIAL DRILLS.

800 lb. Bement Miles & Co., single frame hammer.

36 in. Morris radial drill.

48 in. Gang radial drill (2).

#### LATHES.

12x6 Hendey, tool room, full equip.

14x6 Prentice.

16x6 Prentice.

20x10 Rahn-Carpenter gap lathe.

21x12 Lodge & Davis.

24x14 Rahn-Carpenter.

#### MISCELLANEOUS.

Grinders, oscillating surface, Springfield No. 5 (2).

Millers, No. 2 Van Norman duplex (2)

Miller, slab, 36 in. x 12 ft., heavy.

Miller, vertical, No. 22 Garvin.

Press, PG-5 Ferracute.

Shaper, 24 in. Gould & Eberhardt, back geared.

Shaper, 26 in. Gould & Eberhardt.

Turret lathes, No. 14 Garvin (2).

### FOR SALE BY

**Wm. C. Johnson & Sons Machinery Co.,**

**210-212 Washington Ave.**

**St. Louis, Mo.**

#### LATHES.

16x 6 Reed.

18x 8 Flatther.

20x12 Putnam.

28x18 Putnam.

36x12 in fair condition.

48x40 double head, column facing.

#### DRILLS.

6 spindle Quint.

26 in. Pond, sliding head.

20 in. Barnes.

22 in. Barnes.

32 in. Lodge & Davis, sliding head.

48 in. arm, plain radial.

#### PLANERS AND SHAPERS.

16 in. Steptoe shaper.

22x22x5 planer.

24x24x5 planer.

30x30x8 open side planer.

#### GASOLINE ENGINES.

28 h. p. Fairbanks-Morse.

32 h. p. Fairbanks-Morse.

#### AIR COMPRESSORS.

8x8 Curtis.

8x8x8 Smith-Vaile, steam driven.

900 cu. ft., steam driven.

90 in. Westinghouse, steam driven.

#### STEAM PUMPS.

14x8x10 Worthington duplex.

14x12x18 Gordon duplex.

16 & 26x12x18 Gordon compound.

22x14x24 Dean duplex.

#### MISCELLANEOUS.

Bending rolls, 6 ft., motor driven, capacity,  $\frac{1}{2}$  in.

Bolt cutter,  $\frac{1}{2}$  in. National.

Bolt header, 1 in.

Boring mch., large horizontal, Betts.

Hammer, strap, 30 lb. Bradley.

Hammer, vacuum, 80 lb. Yeakley.

Hammer, 90 lb. Justice.

Keyway cutter, No. 6 Morton.

Miller, universal, No. 1 Brown & S.

Motor, sgle. phase, 15 h. p. Wagner.

Pipe machine, 4 in. Saunders.

Punch, single, 8 in.,  $\frac{1}{4}$  in  $\frac{1}{4}$ .

Punch and shear, dble., No. 5 L. & A.

Screw machine, semi-automatic,  $\frac{1}{2}$  in.

Cleveland.

Splitting shear, 48 in., cap. 1 in. plate.

Tube cutter, 2 in. rotary.

## SECOND-HAND MACHINERY

### FOR SALE BY

**Marshall & Huschart Machinery Company,**

**17 S. Jefferson St., Chicago. 334 N. Capitol Ave., Indianapolis.  
415 Chemical Bldg., St. Louis. 418 Railway Exc., Milwaukee.**

#### BOLT CUTTERS.

1 in. National, double head. | 1½ in. National, single head.

#### BORING MILLS.

22 in. swing Baush vertical turret mill.

No. 4 Betts cylinder boring machine, 3 in. bar, 6 ft. table.

#### DRILLS.

20 in. Barnes, wheel and lever.

21 in. Cincinnati, sliding head, with tapping.

26 in. Barnes, sliding head, with tapping, positive geared feed.

26 in. Mechanics, sliding head, wheel and lever and power feed, back gears.

28 in. Hamilton, sl. hd., wheel and lever and power feed, back gears and tapping attachment.

34 in. Barnes, sliding head, positive geared feed.

Baker Bros. style "F," 2-spindle, heavy pattern manufacturers.

No. 22 Moline, 4-spindle multiple drill, capacity four 2-in. holes in steel.

3 ft. Bickford plain radial, cone drive.

3 ft. Fosdick plain radial, geared feed, swinging table.

5 ft. Bickford full universal radial, cone drive, belt feed, box table.

#### GEAR CUTTERS.

No. 1 Farwell gear hobber, capacity, bronze 5 pitch; steel 6 pitch.

40x9 in. Gould & Eberhardt, Victoria type, spur gears only.

24 in. Fellows gear shaper.

#### GRINDERS.

No. 1 Cincinnati universal cutter. | No. 24 Landis crank grinder.

No. 6 Besly, dbl. disc, 18 in. discs. | No. 6 Diamond grinder.

#### HAMMERS.

50 lb. Williams-White, upright.

800 lb. Ferris & M., agl. frame, steel. | 1500 lb. Lane, steam drop, all steel frame.

#### KEYSEATERS.

No. 2 Baker Brothers (Colburn), capacity 2x18 in.

No. 2 Davis.

#### ENGINE LATHES.

10x36 in. Shepard, foot power.

14 in.x 6 ft. Lodge & Shipley, 3-step cone, turret on carriage.

14 in.x 6 ft. Lodge & Shipley, 5-step cone, compound rest, taper att.

16 in.x 6 ft. American, quick change gears, compound rest.

16 in.x 6 ft. Hamilton, quick change gears, comp. rest, turret on bed.

16 in.x 8 ft. Lodge & Shipley, 3-step cone, chuck fitted.

18 in.x 6 ft. American, 5-step cone, compound rest.

18 in.x 8 ft. Prentice, 4-step cone, chuck fitted.

19 in.x10 ft. Greaves & Klusman, 5-step cone, 16 in. chuck.

20 in.x 8 ft. Schumacher & Boye plain turning lathe, 3-step cone.

20 in.x10 ft. Prentice, 4-step cone, chuck fitted.

22 in. swing John L. Bogert crank shaft lathe.

24 in.x10 ft. Lodge & S., 3-step cone, dbl. back gears, 12 in. chuck fitted.

42 in.x18 ft. Lodge & Shipley, patent head, arranged for triple gears.

43 in.x18 ft. Wood & Light, raised to swing 48 in. compound rest.

28-48 in.x13 ft. Harrington gap lathe, 4-step cone, solid spindle.

Fitchburg Lo-Swing lathe, two carriages, single pulley drive.

#### TURRET LATHES AND SCREW MACHINES.

24 in.x10 ft. Walcott & Wood, 19-16 in. hollow spindle.

25 in. Gisholt, power rapid traverse to turret.

42 in. New Haven, heavy and powerful.

2 in. Pearson turret lathe, friction geared head, wire feed, 2 in. capacity.

2x25 in. Jones & Lamson flat turret lathe.

No. 55 4-spindle National-Acme auto. screw mche., cap. 1½ in. round.

#### MILLING MACHINES.

No. 1½ Cincinnati, universal.

No. 2 Cincinnati, plain, cone type.

No. 2 Cincinnati, univ., cone type,  
all power feeds.

No. 3 Cincinnati, plain, cone type,  
all power feeds.

No. 3 Kempsmith, plain, 3-step cone,  
positive geared feed.

No. 11

26x26

Press,

Press,

Slotted

Send

J. W.

16x 6

18x10

20x12

15x15x

22x22 in

22x22 in

24x24 in

No. 2 S

No. 27

Blower

Borer,

Cock g

Cutter

Drill, 4

Drill, 7

The O

2x24 Jo

12x 5 lb

15 in. B

16x6 M

16x8 M

18 in. B

20 in. G

20 in. S

83 in. Jo

Aircom

Boring

Boring

Buffing

Cock gr

Drill, 24

Drill, 24

Drill, 4

Gas eng

Gas furn

Grinder

Grinder,

## SECOND-HAND MACHINERY

### Marshall & Huschart—Continued.

#### PIPE MACHINES.

No. 11 Jarecki, cap. 2 to 6 in.

6 in. Cox, 6 sets heads and dies.

#### PLANERS.

26x26x6 Cincinnati.

36x36x10 Whitcomb, 2 heads.

#### MISCELLANEOUS.

Press, No. 119 Crosby, open back.

Slotter, draw stroke, 10 in. Baker

Press, No. 3 V. & O., open back.

Bros., full auto. feeds.

Slotter, 10 in. Putnam, circ. table.

Trimming press, No. 6 Waterbury.

Send for our October "Red Cross List C," giving complete descriptions.

### FOR SALE BY

J. W. Wright & Co.,

2nd and Morgan Sts., St. Louis, Mo.

#### LATHES.

16x 6 Porter

18x10 Rahm.

20x12 Gray.

24x 8 American.

24x12 Fitchburg.

41x14 lathe.

#### PLANERS.

15x15x30 in.

22x22 in. x 4 ft. Rochester.

22x22 in. x 5 ft. Wheeler.

24x24 in. x 5 ft. Industrial.

24x24 in. x 6 ft. Whitcomb.

24x24 in. x 8 ft. Pease.

36x36 in. x12 ft. Gray.

#### PRESSES.

No. 2 Swaine, foot (5).

No. 27 Swaine, power.

No. 35 Swaine, power (2).

#### MISCELLANEOUS.

Blower, No. 2 Roots.

Rorer, pulley, 36 in. Streit.

Cock grinder.

Cutter grinder, Cincinnati.

Drill, 4 spindle sensitive.

Drill, 7 spindle sensitive.

Hammer, power, No. 4 Perfect.

Keyseater, No. 2 Davis.

Lathe, pulley, 30 in. Henley.

Pipe machine, 2 in. Jarecki.

Tapper, 2 in. W. & R.

Turret lathe, 2x24 Jones & Lamson.

### FOR SALE BY

The Osborne & Sexton Machinery Co.,

Columbus, Ohio.

#### LATHES.

2x24 Jones & Lamson turret.

12x 5 hollow spdl., compound rest.

15 in. Baker turret lathe.

16x6 Miami Valley.

16x8 Mueller, cp. r., hol. spdl.

18x8, 10 & 12 Hamilton q. c., h. s., c. r.

20x8x10 Hamilton, c. r., h. s.

24x10 LeBlond, turret on shears.

24x10 Johnson, modern, heavy.

36x14 & 18 New Haven.

#### PLANERS AND SHAPERS.

18 in. Barker.

20 in. Gould & Eberhardt.

20 in. Smith & Mills, triple geared.

24 in. Queen City.

24x24x6 Lodge & Davis.

48x48x20 Belmar, 4 heads.

#### BORING MILLS.

63 in. Johnson, single head.

8 and 9 ft. Betts, 3 heads.

#### MISCELLANEOUS.

Air compressor, 100 ft. Bury.

Boring mches., cyl., 20 in Barrett (2).

Boring mill, horiz., 1 1/2 in. B. & S.

Buffing lathes, Toledo, hvy. pat., (3).

Cock grinder, double.

Drill, 24 in. Cincinnati, slid. head.

Drill, 2 1/2 ft. Fosdick plain radial.

Drill, 4 ft. Bickford plain radial.

Gas engines, 10, 15, 25 and 125 h. p.

Gas furnace, No. 2 Chicago.

Grinder, surface, No. 3 B. & S.

Grinder, universal, No. 3 B. & S.

Hammers, drop, 300, 700 and 3,000 lbs.

Hammer, helve, Schultz power.

Keyseater, No. 1 & 2 W. P. Davis.

Millers, hand, Burke and Garvin.

Miller, universal, No. 15 Brainard.

Nut tapper, 4 spindle, 2 in. Acme.

Pipe machine, 1 to 6 in. Merrill.

Press, foot, Niagara, heavy.

Presses, foot, No. 1 Consol. (5).

Presses, power, No. 0 Consol. (3).

Tapping mches., Webster & P., (2).

## SECOND-HAND MACHINERY

### FOR SALE BY

**Niles-Bement-Pond Company, 111 Broadway, New York.**  
**Located at Chicago, Boston and New York.**

#### SPEED LATHES

10 in.x4 ft. Washburn.

- 10x 4 Champion, foot power, c. r.
- 10x 5 Champion, foot power, c. r.
- 10x 5 Champion, standard, c. r.
- 12x 5 Davis, standard, comp. rest.
- 12x 5 Champion, comp. rest, taper.
- 12x 6 Davis, standard, comp. rest.
- 12x 6 Davis, quick change, c. r.
- 12x 6 Davis, comp. rest and taper.
- 13x 6 P&W, rise and fall rest, taper.
- 14x 5 American, square arbor.
- 14x 6 Davis, comp. rest.
- 14x 6 Davis, quick change, c. r.
- 14x 6 Davis, quick change, c.r., taper.

#### LATHES.

11 in.x4 ft. Wells

- 14x 6 F. B. Miles, comp. rest.
- 16x 6 Davis, quick change, c. r.
- 16x 8 Davis, standard, comp. rest.
- 16x 8 Davis, quick change, c. r.
- 18x 6 Blaisdell, rise and fall rise.
- 18x 8 Davis, quick change, c. r.
- 18x 8 Davis, comp. rest, 16in. chuck.
- 18x10 Davis, standard, comp. rest.
- 22x12 Davis, double back geared, c.r.
- 22x16 Fitchburg, plain rest.
- 26x14 Davis, double back gears, c. r.
- 36x17 Pond, comp. rest, triple geared.
- 42x32 Putnam, triple geared, hy. pat.

#### TURRET MACHINERY.

- 3 in. No. 0 Hartford, automatic.
- 4 in. No. 00 Hartford, Pratt & Whitney, automatic.
- 2x1 in. National-Acme, 4 spindle, automatic.

- 5-16 in. No. 0 Hartford, Pratt & Whitney, 2 spindle, automatic.
- 4 in. No. 1 Spencer, single tur. auto.
- 24 in. 27 Conradson, semi-automatic.
- 24 in. Gisholt turret.

#### PLANERS AND SHAPERS.

- 17x17 in.x4 ft. Whitcomb.
- 18 in. Cincinnati dbl. hd. traverse.
- 24 in. Gould & Eberhardt shaper.
- 24x24 in.x6 ft. Powell.

- 30x30 in.x24 ft. Sellers, 3 heads.
- 32 in. Cincinnati rack shapers.
- 78x72 in.x24 ft. Bement, 3 heads.
- 96x108 in.x17 ft. Bement.

#### MILLING MACHINES.

- No. 2 Garvin, plain, 31x5x16.
- No. 2 Garvin Lincoln miller.
- No. 4 Becker-Brainard, plain, 24x7x16 in.
- No. 5 Becker planer, plain, 9x3x7 in.
- Garvin single spindle profiler, table 21x24 in.

- No. 3 1/2 Fox plain, hand and power fd.
- No. 2 Becker plain, 2 feeds.
- No. 3 Becker plain, 2 feeds.
- No. 4 Becker plain, 3 feeds.
- No. 4 Becker plain, 1 feed.
- No. 1 1/2 Becker univ., 2 feeds.
- No. 3 Becker univ., 3 feeds.

#### ELECTRIC

- No. G 1/2 in. Hisey-Wolf, 110 volt, d. c.
- No. H 1/2 in. Hisey-Wolf, 110 volt, d. c.

#### DRILLS.

- No. 1, 1/2 in. Clark-Prest.

#### SENSITIVE DRILLS.

- 12 in. Gardam bench drill.
- No. 1 16 in. Allen.

- No. 4, 1/2 in. cap Barr m.d., 110v., d. c.
- No. 5, 1/2 in. cap Barr m.d., 110v., d. c.

#### UPRIGHT

- 25 in. Aurora, belt feed.
- 25 in. Aurora, positive geared.
- 22 in. Aurora, belt feed, sliding head.
- 28 in. Aurora, belt feed, sliding head.

- 32 in. Aurora, belt feed, sliding head.
- 44 in. Aurora, belt feed, sliding head.
- 22 in. Aurora, pos. gd., sliding head.
- 30 in. Gould & Eberhardt, sl. hd.

#### MULTIPLE SPINDLE

- 6-spindle special Langelier.
- 3-spindle Sigourney.
- 10 in. 2-spindle Slate.
- 10 in. 3-spindle Slate.
- 13 in. No. 1 Hill-Clarke, 110 volt, d. c. motor.

- 12 in. 2-spindle Foote-Burt.
- 14 in. 4-spindle D. P. N.
- 17 in. 4-spindle Jones & L., gang.
- No. 10, 10-spindle Pratt & Whitney, cap, 1 15-16 in., 220 v., d. c. motor.

#### RADIALS.

- 3 ft. Mueller, speed box.
- 3 1/2 ft. Mueller, speed box.
- 4 ft. 6 in. Barr, plain radial.

- Prentiss portable universal radial, cap. 2 in.
- No. 2 Union tool grinder.

#### BORING

- 36 in. No. 2 B. & S., vert. turret.
- 7 ft. Pond boring and turning mill.
- Stearns 36 in. special cylinder borer.

- Nicholson & Waterman boring machine, 3 in. spindle.

#### WOOD WORKING MACHINERY.

- 20 in.x8 ft. Robins pattern makers' lathe.

Axle lathe  
 Axle lathe

No. 1 An  
 No. 31 C

No. O sty  
 No. 2 sty

No. 6 "E

Globe too  
 No. 6 16i  
 No. 0 No  
 No. 1 Bat  
 No. 3 Blo

No. 1 Ol  
 No. 1, 34i

4 in. Stan  
 1 in. Acme  
 1 1/2 in. Lan  
 1 in. Stan

30 in. Bal

Bellows, 1  
 Bicycle tu  
 Cut-off m  
 Flue weld  
 Gas furna  
 Gear cutte  
 11 Slate  
 Iron forge  
 Measuring  
 Motor, 1 1/2  
 Opening c

Chan. A.

14x6 Le Blo  
 14x6 Amer  
 16x8 Henc  
 tachment

14 in. plain

No. 0 Le B  
 No. 26 Be

20 in. B. F  
 plete.

14 in. Lodg  
 16 in. Lutte

Grinder, N  
 Screw ma  
 Acme au

## SECOND-HAND MACHINERY

### Niles-Bement-Pond Company—Continued.

#### RAILROAD MACHINERY.

Axle lathe, No. 2 Bement, double.  
Axle lathe, No. 3 Putnam, double.

#### PUNCHES AND SHEARS.

No. 1 Am. Can. Co.  
No. 31 C. Perkins.

#### TWIST DRILL GRINDERS.

No. O style "A" Washburn.  
No. 2 style "B" Washburn.

#### DISC GRINDERS.

No. 6 "E" 15 in. Gorton.

#### GRINDERS.

Globe tool sharpener, Walker.  
No. 6 16in. Diamond, complete.  
No. 0 Northampton polishing jack.  
No. 1 Bath, universal.  
No. 3 Blount, tool.

#### METAL SAWS.

No. 1 Olmsted, hack.  
No. 1, 3 $\frac{1}{2}$  in. bar, Franklin.

#### BOLT CUTTERS.

$\frac{1}{2}$  in. Standard, single.  
1 in. Acme, single.  
 $\frac{1}{2}$  in. Landis, single.  
1 in. Standard, single.

#### KEYSEATERS.

30 in. Baker draw stroke slotter.

#### MISCELLANEOUS.

Bellows, foot, No. 10-B.  
Bicycle tube hand rolls.  
Cut-off machine, 24 in., Betts.  
Flue welder, 2 in., Ryerson.  
Gas furnace, No. 1 Stewart.  
Gear cutter, bevel and spur, 5 in. No. 11 Slate.  
Iron forge, 28x13x8 ft., on legs.  
Measuring machine, 24 in. Rogers.  
Motor,  $\frac{1}{2}$  h.p. Story, var. speed, 110 v.  
Opening die, 1 in. Ideal.

Pipe bender, 2 in., hand power.  
Planer vise, swivel base, 16x2 in.  
Planer vise, 16x3 $\frac{1}{2}$  in.  
Rubber vulcanizer, Hart., small.  
Saw gummer, Tolman, single wheel.  
Spiral spring winding mche., Shuster.  
Tapper, horiz., 3-16 in. Garvin No. 1.  
Tapper, 5-16 in., No. C Burke.  
Tapper, 4 in. Errington.  
Wheel press, 200-ton, 48 in. Miles.

### FOR SALE BY

Chas. A. Strelinger & Co., Bates & Congress Sts., Detroit, Mich.

#### LATHES.

14x6 LeBlond, quick change gear.  
14x6 American, taper attachment.  
16x8 Hendey, oil pan, relieving attachment.

#### TURRET LATHES.

14 in. plain head Foster-Kimball, (3).

#### MILLING MACHINES.

No. 0 LeBlond, plain.  
No. 26 Becker, plain.

#### DRILLS.

20 in. B. F. Barnes, all geared, complete.

#### SHAPERS AND PLANERS.

14 in. Lodge & Davis shaper.  
16 in. Lutter & Gies shaper.

#### MISCELLANEOUS.

Grinder, No. 2 Landis.  
Screw machine, No. 83 National Acme automatic.  
Screw machine, No. 54, National Acme automatic.  
High speed steel cutter, Slack.

## SECOND-HAND MACHINERY

### FOR SALE BY

J. J. McCabe,

30 Church St., New York City.

#### ENGINE LATHES.

Triple-geared—  
78 in. face-plate Pit lathe.  
72 in. gap lathe, 18 ft. bed.  
54 in.x21 ft., blks. 70 in., Fitchburg.  
52 in.x28 ft., for heaviest duty.  
50 in.x32 ft., Johnson.  
48 in.x24 ft., blks. 68 in., Fitchburg.  
48 in.x24 ft., double, all attchs. for 2.  
48 in.x12 ft., Harrington.  
44 in. facing lathe, Gould & Eber.  
42 in.x16 ft., Putnam.  
34 in.x 8 ft., Johnson.  
Back-geared—  
38 in.x21 ft., blks. 60 in., New Haven  
38 in.x14 ft., New Haven.  
32 in.x15 ft., blocks 40 in., Pond.  
32 in.x13 ft., Pond.

Back-geared—  
30 in.x23 ft., Pond.  
30 in.x17 ft., Pond.  
30 in.x15 ft., Sellers.  
23 in.x15 ft., Worcester.  
26 in.x12 ft., Blaisdell.  
26 in.x10 ft., Putnam.  
25 in.x12 ft., Harrington.  
22 in.x 8 ft., McCabe, heavy  
24 in.x12 ft., Putnam.  
22 in.x10 ft., Harrington.  
20 in.x20 ft., Worcester.  
30 in.x 8 ft., Pond.  
18 in.x10 ft., Fitchburg.  
18 in.x 8 ft., Reed.  
14 in.x 6 ft., Reed.

#### TURRET LATHES.

32 in. swing, American Gisholt type,  
chucks, etc.  
27 in. swing, American Gisholt type,  
chucks, etc.  
2 in.x24 in. Jones & Lamson, full  
equipment.

18 in. swing, 2 9-16 hole, friction hd.  
Dresses.  
18 in. swing brass lathe, chasing at-  
tachment, American.  
16 in. swing, 2 1/2 in. wire-feed screw  
machine, Pratt & Whitney.

#### PLANERS.

120 in.x18 ft. Bement, 4 heads.  
72 in.x26 ft. Sellers, 4 heads.  
48 in.x12 ft. Gray, 2 heads.  
48 in.x 7 ft. Sellers, one head.  
42 in.x14 ft. Pond, 1 head.  
37 in.x26 ft. Niles, 2 heads.  
36 in.x12 ft. Powell, 2 heads.  
36 in.x11 ft. Sellers, 2 heads.  
36 in.x10 ft. Bement, 2 heads.  
36 in.x10 ft. Pond, 1 head.  
30 in.x 8 ft. Pond, 2 heads.

36 in.x 8 ft. Pond, 1 head.  
32 in.x 8 ft. Pond, 1 head.  
30 in.x 7 1/2 ft. Sellers, 2 heads.  
27 in.x 7 ft. Whitcomb, 1 head.  
26 in.x 7 ft. New Haven, 1 head.  
26 in.x 6 ft. Putnam, 1 head.  
25 in.x 6 ft. Sellers, 1 head.  
22 in.x 5 ft. Pratt & Whitney, 1 hd.  
17 in.x 3 ft. Bement, 1 head.  
16 in.x 3 1/2 ft. Bridgeport, 1 head.

#### UPRIGHT BORING MILLS.

10 ft. swing, 2 heads, Niles-Bement-  
Pond, motor-driven, with motors  
complete.  
7 ft. swing, 2 heads, Sellers.  
7 ft. swing, 1 head, Bement.

3 1/2 ft. swing, 2 hds., Bullard, motor-  
driven.  
3 ft. swing, 2 heads, Bullard.  
3 ft. swing, 1 head, Bullard.  
2 1/2 ft. swing, turret head, Niles.

#### HORIZONTAL BORING AND DRILLING MACHINES.

3 in. bar "knee type" Newark.  
2 1/2 in. bar "knee type" Bement, outer  
support.  
2 1/2 in. bar "knee type" Bement, outer  
support.  
40 in. cylinder borer, Bement.

1 1/2 in. bar "knee type" Garvin, outer  
support.  
62 in. cylinder borer, Niles-Bement-  
Pond.  
50 in. cylinder borer, Sellers.

#### DRILLING MACHINES.

7 ft. arm radial, heavy, wt. 15,000  
lbs., Bement.  
5 1/2 ft. arm radial, heavy, Prentice  
Bros. Co.  
5 ft. arm radial, heavy, Prentice  
Bros. Co.  
50 in. swing upright, sliding head,  
Harrington.  
38 in. swing upright, sliding head,  
New Haven.

4 ft. arm radial, heavy, Betts Co.  
36 in. swing, upright, sliding head,  
New Haven.  
32 in. swing upright, sliding head,  
Pond.  
4-spindle sensitive, Foote-Burt.  
4-spindle heavy frame drill, Bickford.  
8-spindle heavy multiple, Western.  
Horizontal spindle drilling and bor-  
ing machine.

#### SLOTTERS.

8 in. stroke, all auto feeds, Newark.  
12 in. stroke, all auto feeds, Sellers.

13 in. stroke, all auto feeds, Bement.  
16 in. stroke, all auto feeds, Bement.

Plain, 1  
feed  
Manuf.  
4000,  
Lincol

10 in. s  
12 in. s  
14 in. s

Auto. s  
all at  
Saw gr  
Cutter

24 in. p  
Allst  
19 in. s  
Allst

15 in.  
Long  
9 in. pu  
& Jo  
8 in. pu  
& Al  
16 in. s

350 lb.  
3500 lb.

79 in.  
head,  
42 in. c  
Beme

Bolt cu  
Cold sa  
Cutting  
Gear cu  
Gear cu  
Beck

#### The R

Horiz.  
Fire bo  
Vertica

Corli  
Autom  
Throttl

60 in. S

Heater  
Write  
Sole ma

## SECOND-HAND MACHINERY

**J. J. McCabe—Continued.**

### MILLING MACHINES.

Plain, large size, table 60 in., all auto feeds, Bement.  
Manufacturers style, table 58 in., wt. 4000, Newton.  
Lincoln style, table 28 in., Garvin.

Planer type, 36 in. x 11 ft., Newton.  
Planer type, 30 in. x 10 ft., Ingersoll.  
Planer type, 22 in. x 8 ft., Ingersoll.  
Valve miller for brass work, Newton.

### SHAPERS.

10 in. stroke, trav. hd., Fitchburg.  
12 in. stroke, trav. hd., Fitchburg.  
14 in. stroke, trav. hd., Fitchburg.

20 in. stroke, Gould & Eberhardt.  
26 in. stroke, ex. base, Steptoe.

### GRINDERS.

Auto. surface grinder, table 24x64 in., all atts., Walker.  
Saw grinder, 48 in., high duty.  
Cutter grinder, Garvin.

Twist drill grinder, Yankee.  
Water tool grinder, Springfield.  
Cutter and reamer grinder, full equipment, Becker.

### BOILER-SHOP TOOLS.

24 in. punch (single) heavy, Long & Allstatter.  
19 in. shear (single), heavy, Long & Allstatter.  
15 in. punch and shear (double), Long & Allstatter.  
9 in. punch and shear (single), Hilles & Jones.  
8 in. punch and shear (double), Long & Allstatter.  
16 in. spring plate rolls.

6 in. horizontal flange punch, Long & Allstatter.  
Universal vertical flanging press, hydraulic, Morgan.  
10 ft. bending rolls, hinged housing.  
6 ft. bending rolls, solid.  
8 ft. hydraulic riveter, 1½ in., Morgan.  
6 ft. hydraulic riveter, without accumulator.  
6 ft. hydraulic riveter, complete.

### HAMMERS.

350 lb. single frame, Bement.  
3500 lb. double frame, Bement.

4000 lb. double frame, Sellers.

### RAILROAD SHOP TOOLS.

79 in. driving-wheel lathe, double-head, quartering att., Bement.  
42 in. car-wheel lathe, double head, Bement.

10 in. axle and centering machine, Bement.  
68 in. quartering machine, Bement.

### MISCELLANEOUS.

Bolt cutter, 1½ in., dble hd., Acme.  
Cold saw, cap. 2½ in., Burr.  
Cutting-off mche., 3 in., Pratt & W.  
Gear cutter, 30 in. spur, Gould & E.  
Gear cutter, 24 in. spur and spiral, Becker-B.

Gear cutter, 20 in. spur and spiral hobbing machine.  
Keyway cutter, 18x1½ in., Morton.  
Nut tapping machine, 6-sp. Acme.  
Pipe machine, 4 in., with dies, Phila.  
Wood lathe, 20 in. x 8 ft., Bement.

Engines, boilers, pumps, blowers, etc.

### FOR SALE BY

**The Randle Machinery Co.,**

**1739 Powers St., Cincinnati, O.**

#### BOILERS.

Horiz. tubular, from 6 to 150 h. p.  
Fire box, from 8 to 80 h. p.  
Vertical, from 3 to 50 h. p.

#### ENGINES.

Corliss, from 50 to 350 h. p.  
Automatic, from 150 to 180 h. p.  
Throttling, from 5 to 225 h. p.

#### PULLEY LATHE.

60 in. Stevens.

#### ELECTRIC GENERATORS.

30 k. w., direct connected.  
20 k. w., direct connected.  
18 k. w., belted.

#### PLANER.

42x16 Bement-Laugherty.

#### AIR COMPRESSOR.

5x60 locomotive type.

#### BLOWER.

No. 5 Sturtevant.

#### MISCELLANEOUS.

Heaters, tanks, pumps, exhausters, electrical saw mill and general machinery.  
Write for list. Also a full assortment of new machinery.  
Sole manufacturers of the celebrated "Leader" Injectors and Jet Pumps.

## SECOND-HAND MACHINERY

### FOR SALE BY

**C. C. Wormer Mach'y Co., 94-96 W. Woodbridge St., Detroit, Mich.**

#### ENGINE LATHES.

12x 5 Davis, q. c.  
14x 6 Le Blond, with taper.  
14x 6 Reed, power cross fd.  
15x 8 Blaisdell, r. and f. rest.  
16x11 Reed, r. and f. rest.  
16x 6 Greaves & K., comp. rest.  
18x 6 Schumacher & Boye, q. c.

18x10 Le Blond, q. c., with taper.  
18x10 Walcott & W., comp. rest.  
18x 8 Walcott & W., comp. rest.  
24x10 Greaves & K., comp. rest.  
24x12 LeBlond, comp. rest.  
24x12 LeBlond, q. c.  
26x22 Fifield, comp. rest.

#### SPECIAL LATHES.

20x 8 Star chucking, with turret on carriage.  
31x 7 Lodge & D. chucking turret.  
14x11 single head axle lathe.  
24 in. Davis turret head forming and boring lathe.  
62 in. bk. gd. 2-side facing lathe.

20x 7 Lodge & D. chucking auto. turret.  
39x16 column facing lathe.  
48 in. dbl. end pulley lathe.  
60 in. Stevens pulley lathe, with boring and crowning att.  
No. 6 Bliss spinning lathe.

#### TURRET LATHES.

24 in. Gisholt, triple gd. head.  
10 in. Crescent, pl. hd.  
14 in. Bardons & O., pl. hd., under-c.  
No. 1 W. & S. univ., with chasing b.  
19 in. Pratt & W., pl. hd., gap turret.

15 in. Jones & L., pl. hd., pan bed.  
No. 4 18 in. Bardons & O., pl. hd.  
No. 1 W. & S., pl. hd., dbl. cut-off.  
16x6 Amer. Fox turret, bk. gd.  
16 in. Windsor, fric. gd. hd., pan bed.

#### SCREW MACHINES.

No. 6 W. & S. turret screw.  
No. 3 Hartford, regular auto., pan.  
0 in. Cleveland auto., plain pan.  
No. 0 Brown & L., pl. hd.  
10x3 W. & S., wire feed.  
No. 2 Pratt & Whitney, w. f., auto.  
No. 1 Foster, wire feed.  
0 in. Cleveland automatic.  
No. 3 regular Spencer Hartford.  
No. 1 W. & S., auto. ck. and w. f.  
No. 2 regular Hartford.

0 in. Cleveland auto., plain.  
0 in. Cleveland auto., with slotter.  
No. 2 Brown & S., automatic.  
No. 1 Pratt & W., cap. 7-16 in.  
10x38 in. Garvin auto., with chuck.  
No. 12 Garvin, pl. hd., wire fd.  
No. 0 B. & S. automatic.  
No. 2 special Spencer Hartford.  
No. 3-A special Spencer Hartford.  
No. 1 regular Hartford.  
16 in. Dreses, fric. gd. hd.

#### DRILLS.

4 ft. arm pl. radial.  
32 in. Cincinnati, sliding head.  
28 in. Snyder, sl. hd., bk. gd.  
Fox style "A," 3-spindle, sensitive.  
15 in. American, sensitive.  
10 in. Barnes, fric. disc.  
16-spindle National universal.  
3-spindle Barnes, lever feed.  
4-spindle Pratt & Whitney, gang.  
12 in. Woodward & R., 3-spin., sens.  
"B" Dallet portable, belt feed.  
No. 1 Foote-Burt 6-spindle, univ.  
10 in. Dwight-Slate, sgl. spindle.

4 ft. arm American, pl. radial.  
28 in. Barnes, sliding head, bk. gd.  
36 in. Prentice, sliding hd., bk. gd.  
Fox 6-spindle sensitive.  
14 in. Henry & W., 4-spindle, ball bearing, sensitive.  
30 in. Thayer, gap.  
Style "A," 2-spindle sensitive, Fox.  
14 in. Woodward & R., 4-spin., sens.  
4 ft. Box, plain radial.  
Style "F," Baker Bros., 17 in. swing.  
Knecht friction sensitive.  
14 in. post drill.

#### SHAPERS.

10 in. Boynton & Plummer, crank.  
10 in. traverse head.  
24 in. Lodge & D., geared rack.

16 in. Chase, worm and gear device.  
15 in. Perkins, friction.  
28 in. Smith & M., triple geared.

#### HAMMERS.

150 lb. Marchand, steam.  
80 lb. Yeakley, belt driven.  
125 lb. Bradley, strap.

1000 lb. board lift.  
176 lb. Blundell, 4-poppet.  
250 lb. Ferris & M., steam.

#### BOLT CUTTERS.

No. 1 National, cap. 1/2 in.  
Garvin & Metcalf threader, 1/2 in.

1 1/2 in. Wells "Little Giant."  
Mayo improved bolt cutter.

#### HACK SAWS.

No. 2 Sterling, power.  
No. 1 1/2 Paragon cold saw.

12 in. Quincy, M. & S.  
5 in. stroke, Millers Falls.

Write for complete detail, description and price.

#### Prentiss

9x44 Star,  
11x4 Man  
14x5 Hen  
16x6 Mc  
17x6 Reed  
18x6 Lodg  
18x8 Lodg

c. r., p.  
20x8 Fay  
power c  
20x8 McM  
20x10 Dra  
21x14 Pow  
26x12 Fish  
26x13 Fitch  
27x12 Prat  
28x10 Glea  
28x12 Put

No. 2 P. &  
No. 2 Gar  
No. 3 Cinc  
No. 4 Gar  
No. 2 LeB

Foote-Bur  
Baker Bro  
24 in. Cinc

20 & 24 in.  
18 in. Put  
16 in. Cinc

12 in. Goul

1/2 in. No. 5  
1/2 in. 1, 1 1/2 &  
2x24 Jones  
1 1/2 in. 4-spin

22x22x4 Po  
26x26x6 Po  
33x33x8 He  
36x36x12 B

50 lb. Brad

Bending r  
Boring mi  
Boring mi  
Boring mi  
Broaching  
Cold saw,  
Engine, ga  
Engine, st



## SECOND-HAND MACHINERY

### FOR SALE BY

**Prentiss Tool & Supply Co., New York, Boston, Buffalo, Syracuse.**

#### LATHES.

9x44 Star, plain rest, p. c. f.  
 11x4 Mann, r. and f.  
 14x5 Hendey, compound rest.  
 16x6 McMahon, c. r., p. c. f.  
 17x6 Reed, plain rest.  
 18x6 Lodge & D., c. r., p. c. f., taper.  
 18x8 Lodge & Shipley, patent head,  
 c. r., p. c. f., chuck.  
 20x8 Fay & Scott, compound rest,  
 power cross feed.  
 20x8 McMahon, compound rest.  
 20x10 Draper, c. r., p. c. f.  
 21x14 Powell, c. r., p. c. f.  
 26x12 Fish, compound rest.  
 26x13 Fitchburg, compound rest.  
 27x12 Pratt & Whitney, plain rest.  
 28x10 Gleason, compound rest.  
 28x12 Putnam, c. r., p. c. f., taper.

30x12 Niles, c. r., p. c. f.  
 32x10 Draper, c. r., p. c. f., taper.  
 32x12 Johnson, c. r., p. c. f.  
 32x17 Bement triple geared, com-  
 pound rest.  
 36x14 Lodge & Shipley, c. r., p. c. f.  
 36x16 Lodge & S., triple gd., c. r., p. c. f.  
 38x20 Fay & Scott, compound rest,  
 power cross feed.  
 40x18 Newark, triple geared.  
 46x38 Fitchburg, triple geared.  
 60x26 Fifield, triple geared.  
 84x20 compound rest, power cross  
 feed.  
 103x35 Bement, triple geared.  
 16 in. x 10 ft. automatic threading lathe.  
 60 in. Stevens pulley lathe.

#### MILLERS.

No. 2 P. & W., Lincoln pattern.  
 No. 2 Garvin, hand.  
 No. 3 Cincinnati, plain.  
 No. 4 Garvin, manufacturers type.  
 No. 2 LeBlond, plain.

No. 4½ Becker, plain.  
 No. 2 Cincinnati, plain.  
 No. 12 Brown & Sharpe, plain.  
 No. 7 Becker, Lincoln.  
 No. 2 Cincinnati, plain.

#### DRILLS.

Feote-Burt, high speed.  
 Baker Bros, high speed.  
 24 in. Cincinnati, sliding head.

5½ ft. Bausch, plain radial.  
 30 in. Gang radial, back gears.  
 10 spindle Gardam, adjustable.

#### SHAPERS.

20 & 24 in. Hendey, friction.  
 18 in. Putnam, friction.  
 16 in. Cincinnati, b. g.

26 in. Lodge & Davis, shifting belt.  
 12 in. Prentiss, crank.  
 30 in. Gould & Eberhardt.

#### GEAR CUTTERS.

12 in. Gould & Eberhardt, hand.

72 in. Gould & Eberhardt.

#### SCREW MACHINES.

4 in. No. 52 National-Acme, auto.  
 2, 4, 1, 1½ & 2 in. P. & W., auto.  
 2x24 Jones & Lamson.  
 1½ in. 4-spindle Gridley.

No. 3 2 in. Pratt & W., wire feed.  
 No. 6 2½ in. W. & S., wire feed.  
 1x10 in. Pratt & Whitney, wire fd.  
 2½ in. 1-spindle Gridley.

#### PLANERS.

22x22x4 Powell, 1 head.  
 26x26x6 Pond, 3 heads.  
 33x33x8 Betts, 1 head.  
 36x36x12 Betts, 4 heads.

38x38x8 Gleason, 1 head.  
 48x42x8 Farrell, 1 head.  
 48x48x15 Pond, three heads.  
 15 ft. plate planer.

#### HAMMERS.

50 lb. Bradley, compact.

200 lb. American, steam.

#### MISCELLANEOUS.

Bending rolls, 8 ft. x 10 in.  
 Boring mill, 38 in. Bausch.  
 Boring mill, 10 ft. Pond.  
 Boring mill, vert., 62 in. Bullard.  
 Broaching machine, No. 2 La Point.  
 Cold saw, 24 in. Newton.  
 Engine, gasoline, 8 h. p., Fairbanks.  
 Engine, steam, 8x10 in. Ide.

Grinder, plain, 12x42 Landis.  
 Grinder, surface, Walker.  
 Keyseater, No. 2 Grant.  
 Press, No. 68 Bliss, double acting.  
 Profiler, 1 spindle, Garvin.  
 Slotter, 13 in. Bement.  
 Slotter, 16 in. Bement, crank.  
 Wood trimmer, 6A Fox.

## SECOND-HAND MACHINERY

### FOR SALE BY

**The Cincinnati Planer Co.,** - - - **Cincinnati, Ohio.**

Second-Hand Tools—Bargains!

#### PLANERS.

24x24x6 s. h. standard Cinti.....	\$ 500	72x60x12 Pond, a. h. & s. h.....	\$2,200
30x30x14 d. h. l. p. Cinti.....	1,000	74x56x20 J. W. Pond, 2 heads,	
30x30x15 Cincinnati, s. h. arr. for		replaned and overhauled.....	2,600
d. h. l. p.....	1,000	Niles floor head.....	275
34x24x12 Cinti, d. h.....	1,100		

#### LATHES.

18x8 Lodge and Shipley.....	\$375	36x8 American chucking.....	\$375
18x8 Rahn-Carpenter.....	375		

#### MISCELLANEOUS.

Balancing way, No. 3 Bowsher \$ 25		Hoist, 8 ton Y. & T., triplex.....	\$ 80
Cranes, hand, 5 ton, 30 ft. span		Planer and hand jointer,	
without hoist, (2) each.....	250	Greaves-Klusman No. 24, new, 150	
Drill, 24 in. Cinti, upright, bk.		Universal saw bench, Greaves-	
gr., pr. fd., tapping att.....	195	Klusman No. 24, new.....	125
Grinder, wet tool, No. 1 Safety.....	95	Variable sp., No. 3 Reeves, c. s.,	20
Hoist, 4 ton, Harrington.....	48	Variable sp., No. 4 Reeves, c. s.,	30
Hoist, 5 ton, Chisholm & M.....	56		

All above machinery in first-class condition. Prices f. o. b. Cincinnati.

### FOR SALE BY

**A. D. White Machinery Co.,** - 108-114 N. Jefferson St., Chicago.

#### LATHES.

14x6 Fay & Scott, taper att.	18x12 Barker, shopworn.
16x6 Lodge & Shipley, q. c.	20x10 Fay & Scott, c. r.
16x8 Blaisdell.	21x12 Davis & Egan, c. r.
16x8 Davis, c. r., fine condition.	30x10 Powell, fine condition.

#### DRILLS.

3 spindle Baker.	30 in. Kerkhoff, sliding head.
4 spindle Barr, sensitive.	30 in. Bickford, sliding head.
28 in. Bickford, sliding head, (4).	32 in. Bickford, sliding head.
28 in. Aurora, sliding head.	3 ft. Bickford radial, cheap.

#### PLANERS.

24x 6 Gray, 1 head (2).	28x 8 Gray, 1 head (2).
24x 6 Pond, 1 head.	32x8 Betts, 1 head.
25x 6 Sellers, spiral drive.	36x10 Gray, 2 heads.
26x 6 Gray, 1 head.	36x12 Cincinnati, 2 heads.
26x 8 Gray, 1 head (2).	38x10 Gray, 1 head, fine.
26x10 Gray, 1 head.	52x25 Betts, 1 head.

#### SCREW MACHINES AND TURRET LATHES.

16 in. No. 3 Pearson screw machine.	13 in. Drees turret lathe.
No. 2 Pratt & Whitney sc. mche.	16x5 Flather turret lathe.
No. 3 Pratt & Whitney sc. mche.	18 in. Drees turret lathe.
8 in. Cleveland, automatic.	18 in. D. & E., fr. hd., 2 step cone.
8 in. Pratt & Whitney, automatic (4).	54 in. belt turret lathe.
8 in. Cleveland, semi automatic.	

#### PUNCH PRESSES.

No. 0 Cady.	No. 754 Bliss, geared, fine.
No. 4 Stiles & Parker incl.	No. 18 Bliss incl.

#### MISCELLANEOUS.

Cutting-off machine, 2 in. H. & R.	Keyseater, No. 2 Catlin.
Grinder, cutter, H. G. Barr.	Keyseater, 16 in. Morton.
Grinder, surface, 8x18 in.	Miller, No. 0 Owen, slotting att.
Hammer, power 35 lb. Justice.	Miller, No. 2 Garvin Lincoln.
Hammer, power, 50 lb. Dienelt.	Pipemachine, 6 in. Curtis.
Hammer, drop, 200 lb. Norton.	Shaper, 16 in. Smith & Mills.
Hammer, 2,000 lb. American.	Shaper, 18 in. Henderson, b. g.

For other bargains, and prices, get our "Yellow Book." It costs you nothing, and can save you time and money.

## SECOND-HAND MACHINERY.

### FOR SALE BY

**International Watch Co.,**

**Jersey City, N. J.**

List from E. Bunzl, Treas., 313-315 Broadway, New York.

Blower, No. 6 Stillwell.

Buffing plant.

Drill presses, bench.

Lathes—Sloan pinion, staff, buffing, case, bench, spring, and watchmakers.

Spring winding machine.

Stud and pin machine, Hartford.

Wheel and gear cutters, Sloan & Chase.

Wigwags, and other machinery.

Prices ridiculously low.

### FOR SALE BY

**Rumely-Wachs Machinery Co., 119 N. Jefferson St., Chicago, Ill.**

#### LATHES.

14x6 Perkins.

14x6 Sebastian, with turret

14x6 Silk.

14x6 Goddard.

14x8 Springfield, motor drive.

16x6 Porter.

16x6 Lodge & S., quick change gear.

16x6 LeBlond, standard.

16x6 LeBlond, quick change gear.

16x8 Fitchburg.

16x10 Blaisdell.

18x8 LeBlond, standard.

18x10 LeBlond standard, with taper.

18x10 Blaisdell.

20x8 Fifield.

20x8 Hamilton.

20x10 LeBlond, quick change gear

20x10 Reed.

21x10 Lodge & Davis.

24x8 Putnam.

24x10 LeBlond, standard.

24x10 LeBlond, quick change gear

28x12 Reed.

36x14 Fifield.

38x16 Fifield.

#### DRILLS.

4 spindle National, turret.

18 in. Baker Bros.

20 in. Mechanics, w. l. sq. base.

20 in. Mechanics, lev. fd. round base

24 in. Hoefler.

24 in. Putnam.

#### PLANERS.

22x14x4 Pratt & Whitney.

22x22x5 Wheeler.

24x24x6 Sellers.

30x30x8 Putnam.

#### TURRET LATHES.

No. 1 Bardons & Oliver.

18 in. American.

21 in. Gisholt.

24 in. American.

18 in. x6 ft. Fox, square arbor.

#### BORING MILLS.

Niles 2½ in. bar, 4 ft. table.

Fitchburg 3 in. bar, 5 ft. table.

42 in. Bullard vertical boring and turning mill.

#### MILLERS.

No. 1½ LeBlond, plain.

No. 3 Cincinnati, universal.

No. 16 Garvin, plain.

#### SHAPERS.

16 in. Acme back geared crank.

18 in. Walcott.

20 in. Rockford back geared crank.

22 in. Walcott.

#### GRINDERS.

18x96 in. Landis, plain.

Gisholt, universal tool.

Washburn, twist drill.

Wells, cutter and reamer.

Dwight Slate, cutter.

Bench tool grinder.

#### PUNCH PRESSES AND SHEARS.

No. 18 Bliss, open back, inclinable.

No. 19 Bliss, open back, inclinable.

No. 6 Walsh, open back, inclinable.

No. 13 Buffaio ind. hand punch.

No. 5 Aurora hand punch.

No. 7 Badger triple punch.

20 in. Foot squaring shear.

22 in. Toledo power squaring shear.

30 in. Peck, Stow & Wilcox power square shear.

#### MISCELLANEOUS.

Blower, Roots Acme, power.

Blower, No. 6 Garden City.

Blower, No. 5 Sturtevant.

Drop press, No. 75 Williams-White.

Hammer, steam, 400-lb. American.

Keyseater, No. 2 Baker Bros.

Pipe machine, 8 in. E. C. & B.

Saw table, Colburn.

Screw mchine., auto., ½ in. B. & S.

Thread rolling machine, 2 in. Acme.

## SECOND-HAND MACHINERY

### FOR SALE BY

**The Warner Elevator Mfg. Co., - Station B, Cincinnati, O.**

These machines for sale at your own price:

#### NILES LATHE.

50 in. swing, 13 ft. bed, power cross feed, back geared, with countershaft and wrenches, etc., complete. Still good for boring, turning and facing.

#### HORIZONTAL SLIDE VALVE ENGINE.

12x24 in., 50 h. p., main shaft 7 in. dia., pulley 6 ft. dia., 18 in. face.

#### STEAM HOISTING ENGINES.

2 Crane direct worm gear, drums 42 in. dia., 21 in. face, chased r. h. for two  $\frac{1}{2}$  in. ropes, bronze worm wheels, double cylinders.

1 Miller engine, 30 in. drum, 15 in. face, r. h. for one  $\frac{1}{2}$  in. rope, 2000 lb. cap.

#### HORIZONTAL BORING BAR.

Bores from 16 to 36 in. dia. and up to 18 ft. long. Can be seen in operation.

Can you use it? Make us an offer quick.

---

## Second-Hand Wood-Working Machinery.

For a large list of used wood-working machinery, consult **The Machinery List**, a publication similar to this but devoted to the advertising of saw-mill and woodworking machines. A copy may be had on application to the publisher, **A. H. Hitchcock**, 1220-1235 Caxton Building, Chicago, Ill.

## THE LODGE & SHIPLEY MACHINE TOOL CO.

**Second-Hand Machine Tools  
For Sale at Bargain Prices.**

#### LATHES.

One 24 in. x 8 ft., 5 step cone head, quick change gear, Lodge & Shipley Engine Lathe.

One 34 in. x 60 in. Fitchburg L.O-Swing Lathe.

One No. 3 Lodge & Shipley Rapid Reduction lathe, with 8 ft. bed.

#### PLANERS.

One 36x36 in. x 10 ft., 3 head, Sellers.

One 36x36 in. x 26 ft., 4 head, Sellers.

One 42x12 in. x 20 ft., single head, Putnam.

#### MISCELLANEOUS.

One Whiton Revolving Centering Machine.

One Franklin Cold Saw, 34 in. capacity.

Two No. 3 Nutter-Barnes Cold Saws, 6 in. capacity.

One Schuster  $\frac{1}{2}$  in. Riveter, Model "A."

One Mumford 12x40 in. power ramming Molding Machine.

One Globe Power Hack Saw, 8 in. capacity.

One Universal Power Hack Saw, 6 in. capacity.

**The Lodge & Shipley Machine Tool Co.  
CINCINNATI, OHIO, U. S. A.**



## **You Do the Fishing While We Take Care of the Bait**

The fun in fishing is in landing your catch; and the profit in the machinery business is in landing orders.

Let us build your machines under a liberal contract, while you fish for orders.

We will guarantee material, workmanship and cost, which may be lower than you can realize in your own shop.

You will be free from the annoyance and possible risk of manufacture, to say nothing of the factory investment, saving your time, capital and energy for selling more machines and making more money.

If you think this is worth looking into, we shall be glad to discuss your proposition with you fully and without cost.

*This is a good time to write*

**C.H. Cowdrey Machine Works**  
**Fitchburg, Mass.**

# The Latest and Best

A Polisher Built Like a Machine Tool



THIS LATHE is decidedly different from others. The belt is downward, doing away with idlers, clutches, countershafts and shifting belts. The steady, true running wheels will speed up to 2500 r. p. m., and you can start and stop it instantly. Will save an hour per day of your operator's time. Some manufacturers buy this lathe so well that they have been using as many as one hundred for over four years.

*Write for prices on this Buffing-Polishing-Grinding Tool*

**The New Britain Machine Co.**  
60 Chestnut St., NEW BRITAIN, CONN.

